

acacgccctt ctctctctct ctctctctct ctctctctct ccccccgctc tnnccctccc
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<210> 4430

<211> 151

<212> PRT

<213> Homo sapiens

<400> 4430

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			20					25					30		
Ser	Ala	Leu	Pro	Gln	Val	Asn	Thr	Arg	Arg	Glu	Ser	Leu	Asn	Arg	Gln
		35				40						45			
Ala	Pro	Gln	Pro	Arg	Arg	Lys	Pro	Ser	Phe	Gln	Thr	Val	Gly	Ile	Pro
		50				55					60				
Phe	Ile	Pro	Trp	His	Arg	Glu	Pro	Lys	Gly	Met	Gln	Thr	Asp	Pro	Gly
		65			70				75					80	
Arg	Ala	Leu	His	Ser	Gln	Thr	Leu	Ala	Arg	Thr	Arg	Arg	Leu	Gly	Ala
			85					90						95	
Pro	Arg	Arg	Ala	Leu	Pro	Pro	Arg	Pro	Pro	Pro	Pro	Ala	Asp	Ser	Pro
			100					105					110		
Leu	Cys	Glu	Leu	Asn	His	Leu	Gly	Ala	Met	Cys	Arg	Gly	Arg	Ala	Ser
		115					120						125		
Ala	Ser	Glu	Val	Leu	Gly	Gly	Pro	Val	Thr	Ala	Ser	Arg	Phe	Tyr	Gly
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Xaa	Pro	Pro	Pro	Val	Ser	Trp									
145						150									

<210> 4431

<211> 507

<212> DNA

<213> Homo sapiens

<400> 4431

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 300
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 360

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 480
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<210> 4432

<211> 57

<212> PRT

<213> Homo sapiens

<400> 4432

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Cys	Lys	Phe	His	Leu	Gly	Asp	Arg	Pro	Ile	Pro	Val	Thr	Phe	Lys	Arg
		20					25					30			
Ala	Ile	Ala	Ala	Leu	Ser	Phe	Trp	Gln	Lys	Val	Arg	Leu	Ala	Trp	Gly
		35				40					45				
Leu	Cys	Phe	Leu	Ser	Asp	Pro	Ile	Arg							
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<210> 4433

<211> 447

<212> DNA

<213> Homo sapiens

<400> 4433

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 180
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 240
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 300
 gagctgcacc tggctccggg gctggccagc tgccctggga gcctgocgtt gtccaacctg
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 420
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 447

<210> 4434

<211> 149

<212> PRT

<213> Homo sapiens

<400> 4434

Xaa	Tyr	Asn	Thr	Ser	Ser	Pro	Arg	Glu	Met	Val	Ala	Gln	Phe	Leu	Leu
1			5				10					15			
Val	Asp	Gly	Asn	Val	Thr	Asn	Ile	Thr	Thr	Val	Ser	Leu	Trp	Glu	Glu

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                20                25                30
Phe Ser Ser Ser Asp Leu Ala Asp Leu Arg Phe Leu Asp Met Ser Gln
   35                40                45
Asn Gln Phe Gln Tyr Leu Pro Asp Gly Phe Leu Arg Lys Met Pro Ser
   50                55                60
Leu Ser His Leu Asn Leu His Gln Asn Cys Leu Met Thr Leu His Ile
   65                70                75                80
Arg Glu His Glu Pro Pro Gly Ala Leu Thr Glu Leu Asp Leu Ser His
   85                90                95
Asn Gln Leu Ser Glu Leu His Leu Ala Pro Gly Leu Ala Ser Cys Leu
   100                105                110
Gly Ser Leu Arg Leu Phe Asn Leu Ser Ser Asn Gln Leu Leu Gly Val
   115                120                125
Pro Pro Gly Leu Phe Ala Asn Ala Arg Asn Ile Thr Thr Leu Asp Met
   130                135                140
Ser His Asn Gln Ile
145

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<210> 4435

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4435

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120
gtggacctgc tcttggggagg cgacctgcgc taccatctgc agcagaatgt gcatttcaca
180
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240
taccacatca tccacagaga catcaagcca gacaatatcc tgctggatga acacggacat
300
gttcacatta cagacttcaa catagcgacg gtagtgaaag gacgagaaag ggcttctctcc
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420
cccgatact cgtaccctgt cgactggtgg tccttgggca tcacagccta tgagctgctg
480
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<210> 4436

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4436

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Gln Gly Leu Glu His Pro Phe Val Val Asn Leu Trp Tyr Ser Phe Gln
      20           25           30
Asp Glu Glu Asp Met Phe Met Val Val Asp Leu Leu Leu Gly Asp
 35           40           45
Leu Arg Tyr His Leu Gln Gln Asn Val His Phe Thr Glu Gly Thr Val
 50           55           60
Lys Leu Tyr Ile Cys Glu Leu Ala Leu Ala Leu Glu Tyr Leu Gln Arg
 65           70           75           80
Tyr His Ile Ile His Arg Asp Ile Lys Pro Asp Asn Ile Leu Leu Asp
      85           90           95
Glu His Gly His Val His Ile Thr Asp Phe Asn Ile Ala Thr Val Val
      100           105           110
Lys Gly Ala Glu Arg Ala Ser Ser Met Ala Gly Thr Lys Pro Tyr Met
      115           120           125
Ala Pro Glu Val Phe Gln Val Tyr Met Asp Arg Gly Pro Gly Tyr Ser
      130           135           140
Tyr Pro Val Asp Trp Trp Ser Leu Gly Ile Thr Ala Tyr Glu Leu Leu
      145           150           155           160
Arg Gly Trp Arg Pro Tyr Glu Ile His Ser Val Thr Pro Ile Asp Glu
      165           170           175
Ile Leu Asn Met Phe Lys Val Glu Arg Val His Tyr Ser Ser Thr Trp
      180           185           190
Cys Lys Gly Met Val Ala Leu Leu Arg Lys Leu Leu Thr Lys Asp Pro
      195           200           205
Glu Ser Arg Val Ser Ser Leu His Asp Ile Gln Ser Val Pro Tyr Leu
      210           215           220
Ala Asp Met Asn Trp Asp Ala Val Phe Lys Lys Ala Leu Met Pro Gly
      225           230           235           240
Phe Val Pro Asn Lys Gly Arg Leu Asn Cys Asp Pro Thr Phe Glu Leu
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Glu Glu Met Ile Leu
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<210> 4437

<211> 620

<212> DNA

<213> Homo sapiens

<400> 4437

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 120
gtgtccatgc tgaagatgga cgagagcacg ctgctgcggg agggcccagga gctcagcgtg
 180
gagaagctgc agcaggccgt gaggcagaac gggctcatgt cggggctgat gcagatgctg
 240

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ctgctgaagg tgtctgcaca catcaccgag cagctgggca tggccccagg tggcgagttc
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 480
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<210> 4438

<211> 206

<212> PRT

<213> Homo sapiens

<400> 4438

Xaa	Cys	Arg	Val	Tyr	Val	Val	Gly	Thr	Ala	His	Phe	Ser	Asp	Asp	Ser
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Lys	Arg	Asp	Val	Val	Lys	Thr	Ile	Arg	Glu	Val	Gln	Pro	Asp	Val	Val
			20					25				30			
Val	Val	Glu	Leu	Cys	Gln	Tyr	Arg	Val	Ser	Met	Leu	Lys	Met	Asp	Glu
		35				40					45				
Ser	Thr	Leu	Leu	Arg	Glu	Ala	Gln	Glu	Leu	Ser	Leu	Glu	Lys	Leu	Gln
	50				55				60						
Gln	Ala	Val	Arg	Gln	Asn	Gly	Leu	Met	Ser	Gly	Leu	Met	Gln	Met	Leu
65				70					75						
Leu	Leu	Lys	Val	Ser	Ala	His	Ile	Thr	Glu	Gln	Leu	Gly	Met	Ala	Pro
			85					90					95		
Gly	Gly	Glu	Phe	Arg	Glu	Ala	Phe	Lys	Glu	Ala	Ser	Lys	Val	Pro	Phe
		100					105					110			
Cys	Lys	Phe	His	Leu	Gly	Asp	Arg	Pro	Ile	Pro	Val	Thr	Phe	Lys	Arg
	115					120					125				
Ala	Ile	Ala	Ala	Leu	Ser	Phe	Trp	Gln	Lys	Val	Arg	Leu	Ala	Trp	Gly
	130				135					140					
Leu	Cys	Phe	Leu	Ser	Asp	Pro	Ile	Ser	Lys	Asp	Asp	Val	Glu	Arg	Cys
145				150					155					160	
Lys	Gln	Lys	Asp	Leu	Leu	Glu	Gln	Met	Met	Ala	Glu	Met	Ile	Gly	Glu
			165					170					175		
Phe	Pro	Asp	Leu	His	Arg	Thr	Ile	Val	Ser	Glu	Arg	Asp	Val	Tyr	Leu
		180					185						190		
Thr	Tyr	Met	Leu	Arg	Gln	Ala	Ala	Arg	Arg	Leu	Glu	Leu	Pro		
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<210> 4439

<211> 2121

<212> DNA

<213> Homo sapiens

<400> 4439

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180
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240
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300
ctttataaac tattttgat atcataattca cttcctaagt cttactgcag taactgtatg
360
aaatttaatt agattacgtt ttagcattag tcagaagatt taaaaaatat gtaaaatgtt
420
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480
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540
agacatctta ctttcttgaa tttctactta acatccatgt ggtgcacttt ttcaggcatt
600
gtaataagtg caaataata atcaattatt gatttctaaa aatctatacc aatagacaat
660
actcaggctt ggaaatattt tgaacactca gatataaaaa ttcagtaaac aatttatgca
720
tggtattttt tctcctgtc ctccctctcc ctccctccct cccctatcta ttgggttaa
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 1920
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 1980
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 2121

<210> 4440

<211> 82

<212> PRT

<213> Homo sapiens

<400> 4440

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 20 25 30
 Arg Leu Ser Met Ile Gly Ala Asp Ser Ser Glu Glu Lys Phe Leu Arg
 35 40 45
 Arg Ile Gly Arg Phe Gly Tyr Gly Tyr Gly Pro Tyr Gln Pro Val Pro
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 Glu Gln Pro Leu Tyr Pro Gln Pro Tyr Gln Pro Gln Tyr Gln Gln Tyr
 65 70 75 80
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<210> 4441

<211> 2055

<212> DNA

<213> Homo sapiens

<400> 4441

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1920

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 2040
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 2055

<210> 4442

<211> 517

<212> PRT

<213> Homo sapiens

<400> 4442

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 Trp Lys Glu Lys Val Leu Trp Ala Leu Leu Ala Val Leu Leu Ala Ser
 35 40 45
 Trp Arg Leu Trp Ala Ile Lys Asp Phe Gln Glu Cys Thr Trp Gln Val
 50 55 60
 Val Leu Asn Glu Phe Lys Arg Val Gly Glu Ser Gly Val Ser Asp Ser
 65 70 75 80
 Phe Phe Glu Gln Glu Pro Val Asp Thr Val Ser Ser Leu Phe His Met
 85 90 95
 Leu Val Asp Ser Pro Ile Asp Pro Ser Glu Lys Tyr Leu Gly Phe Pro
 100 105 110
 Tyr Tyr Leu Lys Ile Asn Tyr Ser Cys Glu Glu Lys Pro Ser Glu Asp
 115 120 125
 Leu Val Arg Met Gly His Leu Thr Gly Leu Lys Pro Leu Val Leu Val
 130 135 140
 Thr Phe Gln Ser Pro Val Asn Phe Tyr Arg Trp Lys Ile Glu Gln Leu
 145 150 155 160
 Gln Ile Gln Met Glu Ala Ala Pro Phe Arg Ser Lys Gly Gly Pro Gly
 165 170 175
 Gly Gly Gly Arg Asp Arg Asn Leu Ala Gly Met Asn Ile Asn Gly Phe
 180 185 190
 Leu Lys Arg Asp Arg Asp Asn Asn Ile Gln Phe Thr Val Gly Glu Glu
 195 200 205
 Leu Phe Asn Leu Met Pro Gln Tyr Phe Val Gly Val Ser Ser Arg Pro
 210 215 220
 Leu Trp His Thr Val Asp Gln Ser Pro Val Leu Ile Leu Gly Gly Ile
 225 230 235 240
 Pro Asn Glu Lys Tyr Val Leu Met Thr Asp Thr Ser Phe Lys Asp Phe
 245 250 255
 Ser Leu Val Glu Val Asn Gly Val Gly Gln Met Leu Ser Ile Asp Ser
 260 265 270
 Cys Trp Val Gly Ser Phe Tyr Cys Pro His Ser Gly Phe Thr Ala Thr
 275 280 285
 Ile Tyr Asp Thr Ile Ala Thr Glu Ser Thr Leu Phe Ile Arg Gln Asn
 290 295 300
 Gln Leu Val Tyr Tyr Phe Thr Gly Thr Tyr Thr Thr Leu Tyr Glu Arg
 305 310 315 320
 Asn Arg Gly Ser Gly Glu Cys Ala Val Ala Gly Pro Thr Pro Gly Glu

325 330 335
 Gly Thr Leu Val Asn Pro Ser Thr Glu Gly Ser Trp Ile Arg Val Leu
 340 345 350
 Ala Ser Glu Cys Ile Lys Lys Leu Cys Pro Val Tyr Phe His Ser Asn
 355 360 365
 Gly Ser Glu Tyr Ile Met Ala Leu Thr Thr Gly Lys His Glu Gly Tyr
 370 375 380
 Val His Phe Gly Thr Ile Arg Val Thr Thr Cys Ser Ile Ile Trp Ser
 385 390 395 400
 Glu Tyr Ile Ala Gly Glu Tyr Thr Leu Leu Leu Val Glu Ser Gly
 405 410 415
 Tyr Gly Asn Ala Ser Lys Arg Phe Gln Val Val Ser Tyr Asn Thr Ala
 420 425 430
 Ser Asp Asp Leu Glu Leu Leu Tyr His Ile Pro Glu Phe Ile Pro Glu
 435 440 445
 Ala Arg Gly Leu Glu Phe Leu Met Ile Leu Gly Thr Glu Ser Tyr Thr
 450 455 460
 Ser Thr Ala Met Ala Pro Lys Gly Ile Phe Cys Asn Pro Tyr Asn Asn
 465 470 475 480
 Leu Ile Phe Ile Trp Gly Asn Phe Leu Leu Gln Arg Ser Gly Thr Ser
 485 490 495
 Trp Arg Ala Ala Thr Gly Ser Ser Cys Ser Leu Pro Arg Ala Gly
 500 505 510
 Arg Cys Thr Ser Ala
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<210> 4443

<211> 692

<212> DNA

<213> Homo sapiens

<400> 4443

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 120
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 180
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 240
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 360
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 420
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 540
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692

<210> 4444
<211> 108
<212> PRT
<213> Homo sapiens

<400> 4444
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Leu Met Pro Asn Gln Val Gln Thr Thr Leu Leu Phe Cys Val Thr Leu
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Cys Glu Ala Ser Cys Lys Leu Asp Ser Leu Pro Ser Ala Pro Ser Pro
35 40 45
Lys Ala Gly Leu Gln Glu Val Arg Pro Ala Leu Gln Ala Thr Pro Val
50 55 60
Leu Gly Leu Leu Leu Ser Ser Ser Phe Leu Arg Val Thr Glu Pro Gly
65 70 75 80
Arg Glu Val Gly Cys Gly Leu Pro Cys Pro Tyr Ser His Leu Leu Gln
85 90 95
Leu Pro Pro Cys Trp Thr His Gln Gln Gln Ser Lys
100 105

<210> 4445
<211> 901
<212> DNA
<213> Homo sapiens

<400> 4445
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120
actcagctgt cccagaggat gccagaccc tcattcttat ccaggaccta ggagccctac
180
ccctggcctt ccctcatcag cgttaaata tgatttactg ctgttaccat catcactgcc
240
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300
gatgatactc aggtacacgg gtgctcaaca gattgtcttc tcctatcttc agacggtctt
360
tgcatgcatg cagccattgg cactccatt gtgtggaagg aaaccagccc agggtcacac
420
agctggtcag cagcaacata gctggtctca aatctaaggc gcctgaccat gcctccatga
480
gggaccgcct ccaagggagg ttgatctcgg ctttggggag cctttctctg gctgcacgaa
540
taacctccat tgttcgagac cccaaactct gctcacatct tcctttccct gtctctgctt
600
gggctatgat caggtgact ctacgaaccc ttcattggaca ttataatact ctctgccatt
660
cacttttggt ctaatctgac ttcaaccccc acttacttgg tctctccttt tacaaccaac
720

atggcaaaac cccatctcca caaaaattgg ataattgat aattatcatt attgggtttc
 780
 tgagacgtta cacatttaac attctcttct gcacaagttg cctttgtgtg agtatactaa
 840
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 900
 a
 901

<210> 4446
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4446
 Met Leu Gln Trp Ile Thr Gln His Pro Ser Gln Gly Pro Met Pro Leu
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 Lys Met Asp Leu Pro Pro Gly Asp Pro Gly Val Leu Pro Leu Ser Cys
 20 25 30
 Pro Gln Glu Cys Pro Asp Pro His Ser Tyr Pro Gly Pro Arg Ser Pro
 35 40 45
 Thr Pro Gly Leu Pro Ser Ser Ala Val Asn Asp Asp Leu Leu Leu Leu
 50 55 60
 Pro Ser Ser Leu Pro Ser Val Thr Lys Gly Leu Pro Arg Cys Gln Leu
 65 70 75 80
 Trp Asn Glu Gly Cys Pro Trp Glu Val Met Ile Leu Arg Tyr Thr Gly
 85 90 95
 Ala Gln Gln Ile Ala Ser Ser Tyr Pro Gln Thr Val Phe Ala Cys Met
 100 105 110
 Gln Pro Leu Ala Leu Pro Leu Cys Gly Arg Lys Pro Ala Gln Gly His
 115 120 125
 Thr Ala Gly Gln Gln Gln His Ser Trp Ser Gln Ile
 130 135 140

<210> 4447
 <211> 951
 <212> DNA
 <213> Homo sapiens

<400> 4447
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 120
 gtggtgggct atggccgcct cggacagtc cttgtgtccc gccttctggc tcagggatca
 180
 gaactgggcc tagaacttgt ttttgtgtgg aacctgtacc ctggacgaat ggcagggagt
 240
 gtgcccctg cctgcagct cgaagacctc actacacttg aggaaaggca cctgacctt
 300
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 360
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 420


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ggaccacctgg ctgcagccca cagccctggg ccttgactg tgctctacga aggccttgct
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540
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600
gacatgcacg tgggtgatgt agagctgagc ggaccccggg gccccacggg ccgaagcttt
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gctgtgcaca ccgcagaga gaaccttgcc gagccaggcg cggtcaccgg ctccgccacc
720
gtcagggcct tctggcggag cctcctggcc tgctgccagc tcccctccag gcgggggate
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840
ccaccatccc acccctgccc tgccccactt cccagggtc tcccttctga ctcagtaaag
900
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<210> 4448

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4448

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Arg Cys Pro Lys Ser Ser Gly Cys Pro Gly Leu Val Gln Arg Ala Ala
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Ser Ser Pro Gly Ser Gln Ala Pro Asp Thr Ala Leu Arg Ala Met Ala
20 25 30
Asp Arg Gly Pro Trp Arg Val Gly Val Val Gly Tyr Gly Arg Leu Gly
35 40 45
Gln Ser Leu Val Ser Arg Leu Leu Ala Gln Gly Ser Glu Leu Gly Leu
50 55 60
Glu Leu Val Phe Val Trp Asn Arg Asp Pro Gly Arg Met Ala Gly Ser
65 70 75 80
Val Pro Pro Ala Leu Gln Leu Glu Asp Leu Thr Thr Leu Glu Glu Arg
85 90 95
His Pro Asp Leu Val Val Glu Val Ala His Pro Lys Ile Ile His Glu
100 105 110
Ser Gly Val Gln Ile Leu Arg His Ala Asn Leu Leu Ser Leu Arg Val
115 120 125
Thr Met Ala Thr His Pro Asp Gly Phe Arg Leu Glu Gly Pro Leu Ala
130 135 140
Ala Ala His Ser Pro Gly Pro Cys Thr Val Leu Tyr Glu Gly Pro Val
145 150 155 160
Arg Gly Leu Cys Pro Phe Ala Pro Arg Asn Ser Asn Thr Met Ala Ala
165 170 175
Ala Ala Leu Ala Ala Pro Ser Leu Gly Phe Asp Gly Val Ile Gly Val
180 185 190
Leu Val Ala Asp Thr Ser Leu Thr Asp Met His Val Val Asp Val Glu
195 200 205
Leu Ser Gly Pro Arg Gly Pro Thr Gly Arg Ser Phe Ala Val His Thr
210 215 220
Arg Arg Glu Asn Pro Ala Glu Pro Gly Ala Val Thr Gly Ser Ala Thr

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225		230		235		240
Val Thr Ala Phe Trp Arg Ser Leu Leu Ala Cys Cys Gln Leu Pro Ser						
		245		250		255
Arg Pro Gly Ile His Leu Cys						
		260				

<210> 4449

<211> 1365

<212> DNA

<213> Homo sapiens

<400> 4449

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120
tcagcattg gaagaattta gggaaaaaaa tcagagatta caaaaattat gggttggaag
180
attaattctg tattectcag ttctctatct gtttacatgc ttaattgtat atttgtggta
240
tcttctgat gaatttacag caagacttgc catgacactc ccattttttg cttttccatt
300
gatcatctgg agcataagaa cagtaattat tttcttcttt tccaagagaa cagaagagaa
360
taattgaagca ttggatgatt taaaatccca gaggaaaaaa atacttgaag aagtcattgga
420
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480
agcaaaaggag tgtgagccgc catctgctgg agcagctgta actgcaagac ctggacaaga
540
gattcgctcag cgaactgcag ctcaaagaaa cttttctcaa caccagcaag ccctaaccag
600
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660
ggacccccag aaaggactgt tactccagcc ctatcatcaa atgtgttacc aagacatctt
720
ggatccccctg ctacttcagt gcttggaaatg ggtcttcate ctcagggtcc acctttagca
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840
gatgggtccac aaaacaggta tgcaactata tgcagcagt gtttttctca taatggcatg
900
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960
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1020
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1080
gacaaccagt ttaatgaaga atcttttagaa cacgatgttc ttgatgataa tacagagcag
1140
acagatgaca aaataccagc tacagaacag acaaaccaag tgattgaaaa agcatctgac
1200
tcagaggaaac cagaggagaa acaagagact gagaatgagg aagcctcagt gattgaaacc
1260

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aactccacag ttctctggagc tgattctatt cctgatccctg aactaagtgg agaattcttg
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 1365

<210> 4450

<211> 194

<212> PRT

<213> Homo sapiens

<400> 4450

Met	Gly	Leu	His	Pro	Pro	Gly	Pro	Pro	Leu	Ala	Arg	Pro	Ile	Leu	Pro
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Arg	Glu	Arg	Gly	Ala	Leu	Asp	Arg	Ile	Val	Glu	Tyr	Leu	Val	Gly	Asp
			20				25						30		
Gly	Pro	Gln	Asn	Arg	Tyr	Ala	Leu	Ile	Cys	Gln	Gln	Cys	Phe	Ser	His
			35			40						45			
Asn	Gly	Met	Ala	Leu	Lys	Glu	Glu	Phe	Glu	Tyr	Ile	Ala	Phe	Arg	Cys
	50				55						60				
Ala	Tyr	Cys	Phe	Phe	Leu	Asn	Pro	Ala	Arg	Lys	Thr	Arg	Pro	Gln	Ala
65					70				75					80	
Pro	Arg	Leu	Pro	Glu	Phe	Ser	Phe	Glu	Lys	Arg	Gln	Val	Val	Glu	Gly
			85						90					95	
Ser	Ser	Ser	Val	Gly	Pro	Leu	Pro	Ser	Gly	Ser	Val	Leu	Ser	Ser	Asp
			100					105					110		
Asn	Gln	Phe	Asn	Glu	Glu	Ser	Leu	Glu	His	Asp	Val	Leu	Asp	Asp	Asn
			115				120						125		
Thr	Glu	Gln	Thr	Asp	Asp	Lys	Ile	Pro	Ala	Thr	Glu	Gln	Thr	Asn	Gln
			130			135					140				
Val	Ile	Glu	Lys	Ala	Ser	Asp	Ser	Glu	Glu	Pro	Glu	Glu	Lys	Gln	Glu
145				150						155				160	
Thr	Glu	Asn	Glu	Glu	Ala	Ser	Val	Ile	Glu	Thr	Asn	Ser	Thr	Val	Pro
			165					170						175	
Gly	Ala	Asp	Ser	Ile	Pro	Asp	Pro	Glu	Leu	Ser	Gly	Glu	Ser	Leu	Thr
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Ala Glu

<210> 4451

<211> 1637

<212> DNA

<213> Homo sapiens

<400> 4451

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 120
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 180
 gctcctggag tcagagagga agctgcagga ggagcgacac cgcaccgtgg tcttggagca
 240
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 300

caggacaaaa acagctccgc tcctggatgt atgctgtgta cggggccttg gctgtgatgg
360
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420
cctcgctttt gggccagccc tggtctgtgc ttggccttgg cttggccagc ctggcctcct
480
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540
aagaggtgct gtttcatggg ggcagcagct tcacagtgtc gcgttgacc agctttgcac
600
tggagagctg tggccaccct gaccgcact nactccttag ctgacctgtc caagtacaa
660
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720
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780
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900
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960
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1020
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1080
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1140
acatttgcca tcaccacact gtggcttggg ctttgtgaca ttgtctacct ttggtcaatc
1200
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1260
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1440
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<210> 4452

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4452

Met Gly Ala Ala Ser Gln Cys Cys Val Ala Pro Ala Leu His Trp

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      1           5           10           15
Arg Ala Val Pro Thr Leu Thr Ala Thr Xaa Ser Leu Ala Asp Leu Leu
      20           25           30
Lys Tyr Asn Phe Tyr Leu Pro Phe Phe Phe Gly Pro Ile Met Thr
      35           40           45
Phe Asp Arg Phe His Ala Gln Val Ser Gln Val Glu Pro Val Arg Arg
      50           55           60
Glu Gly Glu Leu Trp His Ile Arg Ala Gln Ala Gly Leu Ser Val Val
      65           70           75           80
Ala Ile Met Ala Val Asp Ile Phe Phe His Phe Phe Tyr Ile Leu Thr
      85           90           95
Ile Pro Ser Asp Leu Lys Phe Ala Asn Arg Leu Pro Asp Ser Ala Leu
      100          105          110
Ala Gly Leu Ala Tyr Ser Asn Leu Val Tyr Asp Trp Val Lys Ala Ala
      115          120          125
Val Leu Phe Gly Val Val Asn Thr Val Ala Cys Leu Asp His Leu Asp
      130          135          140
Pro Pro Gln Pro Pro Lys Cys Ile Thr Ala Leu Tyr Val Phe Ala Glu
      145          150          155          160
Thr His Phe Asp Arg Gly Ile Asn Asp Trp Leu Cys Lys Tyr Val Tyr
      165          170          175
Asn His Ile Gly Gly Glu His Ser Ala Val Ile Pro Glu Leu Ala Ala
      180          185          190
Thr Val Ala Thr Phe Ala Ile Thr Thr Leu Trp Leu Gly Pro Cys Asp
      195          200          205
Ile Val Tyr Leu Trp Ser Phe Leu Asn Cys Phe Gly Leu Asn Phe Glu
      210          215          220
Leu Trp Met Gln Lys Leu Ala Glu Trp Gly Pro Leu Ala Arg Ile Glu
      225          230          235          240
Ala Ser Leu Ser Val Gln Met Ser Arg Arg Val Arg Ala Leu Phe Gly
      245          250          255
Ala Met Asn Phe Trp Ala Ile Ile Met Tyr Asn Leu Val Ser Leu Asn
      260          265          270
Ser Leu Lys Phe Thr Glu Leu Val Ala Arg Arg Leu Leu Leu Thr Gly
      275          280          285
Phe Pro Gln Thr Thr Leu Ser Ile Leu Phe Val Thr Tyr Cys Gly Val
      290          295          300
Gln Leu Val Lys Glu Arg Glu Arg Thr Leu Ala Leu Glu Glu Glu Gln
      305          310          315          320
Lys Gln Asp Lys Glu Lys Pro Glu
      325

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<210> 4453

<211> 685

<212> DNA

<213> Homo sapiens

<400> 4453

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120
gcacatctat acccactctg gctctgaaag gctgtcaac caaaaatggg cagctggggc
180

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taaggcatat ttaacaaaag gtcctaaaagg acccctttca cttgggtcta gcatccaggc
 240
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 300
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 420
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 540
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 685

<210> 4454

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4454

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 Pro Gly Trp His Ile Tyr Thr His Ser Gly Ser Glu Arg Leu Val Asn
 20 25 30
 Gln Lys Trp Ala Ala Gly Ala Lys Ala Tyr Leu Asn Lys Gly Ser Lys
 35 40 45
 Gly Pro Leu Ser Leu Gly Ser Ser Ile Gln Pro Leu Ser Gln Gln Arg
 50 55 60
 Gln Asp Cys Gly Pro Leu Cys Phe Leu Asn Arg Ala Gln Gly Ser Gln
 65 70 75 80
 Gly Met Pro Ser Leu Gln His Ser Thr Leu Trp Ser Gln Trp Ser Arg
 85 90 95
 Arg Ser Ser Leu Lys Tyr Tyr Tyr Arg Gly Glu Arg Pro Ile Leu Ala
 100 105 110
 Met Leu Leu Tyr Leu Pro Arg Pro Lys Thr Val Leu Cys Ser Phe Ser
 115 120 125
 Cys Ser Glu Ile Arg Ser Gln Asn Ser Arg Arg His Ser Phe Gly Lys
 130 135 140
 Lys Gly His Ala Phe Val Leu Tyr Leu Ile Leu Val Ser Glu Ala Leu
 145 150 155 160
 Ile Pro Val Asp Cys Gly Leu Arg Trp Ser Pro Pro Gln Asp Pro Gln
 165 170 175
 Leu Gln Arg Gln Arg Arg Met Lys Glu Glu Gln Pro Pro Gln Asp Leu
 180 185 190
 Leu His Trp Glu Pro His Pro Thr Phe Ser Val Pro Phe Thr Arg
 195 200 205

<210> 4455

<211> 882

<212> DNA

<213> Homo sapiens

<400> 4455

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 120
 aagctgttca ttgggcagat ccccgcaac ctggatgaga aggaacctca gccctctctc
 180
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 420
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 480
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 720
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 882

<210> 4456

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4456

Met	Lys	Asp	His	Asp	Ala	Ile	Lys	Leu	Phe	Ile	Gly	Gln	Ile	Pro	Arg
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Asn	Leu	Asp	Glu	Lys	Asp	Leu	Lys	Pro	Leu	Phe	Glu	Glu	Phe	Gly	Lys
			20					25					30		
Ile	Tyr	Glu	Leu	Thr	Val	Leu	Lys	Asp	Arg	Phe	Thr	Gly	Met	His	Lys
			35				40					45			
Gly	Cys	Ala	Phe	Leu	Thr	Tyr	Cys	Glu	Arg	Glu	Ser	Ala	Leu	Lys	Ala
	50					55				60					
Gln	Ser	Ala	Leu	His	Glu	Gln	Lys	Thr	Leu	Pro	Gly	Met	Asn	Arg	Pro
	65				70					75				80	
Ile	Gln	Val	Lys	Pro	Ala	Asp	Ser	Glu	Ser	Arg	Gly	Asp	Ser	Ser	Cys
			85					90					95		
Leu	Arg	Gln	Pro	Pro	Ser	His	Arg	Lys	Leu	Phe	Val	Gly	Met	Leu	Asn

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          100          105          110
Lys Gln Gln Ser Glu Asp Asp Val Arg Arg Leu Phe Glu Ala Phe Gly
          115          120          125
Asn Ile Glu Glu Cys Thr Ile Leu Arg Gly Pro Asp Gly Asn Ser Lys
          130          135          140
Gly Cys Ala Phe Val Lys Tyr Ser Ser His Ala Glu Ala Gln Ala Ala
          145          150          155          160
Ile Asn Ala Leu His Gly Ser Gln Thr Met Pro Gly Ala Ser Ser Ser
          165          170          175
Leu Val Val Lys Phe Ala Asp Thr Asp Lys Glu Arg Thr Met Arg Arg
          180          185          190
Met Gln Gln Met Ala Gly Gln Met Gly Met Phe Asn Pro Met Ala Ile
          195          200          205
Pro Phe Gly Ala Tyr Gly Ala Tyr Ala Gln Ala Leu Met Gln Gln Gln
          210          215          220
Ala Ala Leu Met Ala Ser Val Ala Gln Gly Gly Tyr Leu Asn Pro Met
          225          230          235          240
Ala Ala Phe Ala Ala Gln Met Gln Gln Met Ala Ala Leu Asn Met
          245          250          255
Asn Gly Leu Ala Ala
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<210> 4457

<211> 1491

<212> DNA

<213> Homo sapiens

<400> 4457

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120
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180
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780

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<210> 4458

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4458

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 Lys Gly Gly Tyr Leu Met Leu Ser Phe Ile Asp Phe Cys Pro Phe Ser
 35 40 45
 Val Met Arg Leu Arg Ser Leu Pro Ser Pro Gln Arg Tyr Thr Arg Gln
 50 55 60
 Glu Arg Tyr Arg Ala Arg Pro Pro Arg Val Leu Glu Arg Ser Gly Phe
 65 70 75 80
 His Asn Glu Asn Ser Leu Ala Ile Tyr Gln Gly Leu Val Tyr Tyr Leu
 85 90 95
 Leu Trp Leu His Ser Val Tyr Asp Lys Asp Tyr Tyr Phe Phe Leu Ala
 100 105 110
 Ser Asn Trp Arg Ser Ala Gly Gly Val Ser Ile Glu Met Asp Ser Tyr
 115 120 125
 Glu Lys Ile Tyr Asn Leu Glu Ser Ala Tyr Glu Leu Pro Glu Arg Ile
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 Phe Leu Asp Lys Gly Thr Glu Tyr Ser Phe Ala Ile Phe Leu Ser Ala
 145 150 155 160
 Gln Gly His Ser Phe Arg Thr Gln Ser Glu Leu Gly Leu Arg Gly Thr
 165 170 175
 Arg Val Glu Pro Glu Gly Arg Gly Glu Tyr Gln Asn Leu Gly Ala

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      195      200      205
Gly Val Val Leu Ala Asp Pro Gly Cys Ile Glu Ala Ser Val Lys Gln
      210      215      220
Glu Val Leu Ile Asn Arg Asn Ser Val Leu Phe Ser Ile Thr Leu Lys
      225      230      235
Asp Lys Lys Leu Cys Tyr Asp Gln Gly Ile Ser Gly His His Leu Met
      245      250      255
Glu Thr Ser Met Thr Val Asn Val Arg Ser Lys Pro Gly Gly Glu Gly
      260      265      270
Lys Arg Leu Ala Phe Asp Ile Thr Tyr Thr Leu Glu Tyr Ser Arg Leu
      275      280      285
Lys Asn Lys His Tyr Phe Asp Cys Val Asn Val Asn Pro Glu Met Pro
      290      295      300
Cys Phe Leu Phe Arg Asp Ser Val Tyr Val Leu Leu Val Val Gly Gly
      305      310      315
Gly Pro Thr Leu Asp Ser Leu Lys Asp Tyr Ser Glu Asp Glu Ile Tyr
      325      330      335
Arg Phe Asn Ser Pro Leu Asp Lys Thr Asn Ser Leu Ile Trp Thr Thr
      340      345      350
Arg Thr Thr Arg Thr Thr Lys Asp Ser Ala Phe His Ile Met Ser His
      355      360      365
Glu Ser Pro Gly Ile Glu Trp Leu Cys Leu Glu Asn Ala Pro Cys Tyr
      370      375      380
Asp Asn Val Pro Gln Gly Ile Phe Ala Pro Glu Phe Phe Phe Lys Val
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Leu Val Ser Asn Arg
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<210> 4459

<211> 1114

<212> DNA

<213> Homo sapiens

<400> 4459

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<210> 4460

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4460

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			20					25				30			
Gly	Lys	Glu	Arg	Ala	Ala	Pro	Ser	Gln	Gly	Ser	Pro	Arg	Cys	Cys	Pro
		35					40				45				
Leu	Ser	Pro	Gly	Ser	Ala	Arg	Gly	Ala	Arg	Gly	Glu	Asn	Gln	Pro	Arg
		50				55					60				
Ser	Arg	Gly	Arg	Ala	Ala	Asn	Gly	Arg	Ala	Pro	Pro	Gly	Pro	Leu	Thr
65				70						75				80	
Arg	Arg	Leu	Ala	Gly	Arg	Ala	Arg	Thr	Pro	Arg	Pro	Lys	Trp	Leu	Phe
			85					90					95		
Gln	Gly	Ala	Ser	Gln	Ala	Gly	Glu	Leu	Gly	Lys	Gln	Arg	Arg	Met	Pro
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<210> 4461

<211> 488

<212> DNA

<213> Homo sapiens

<400> 4461

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<210> 4462

<211> 96

<212> PRT

<213> Homo sapiens

<400> 4462

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			20					25					30		
Ser	Ser	Asn	Lys	Glu	Asn	Phe	Ile	Tyr	Leu	Ala	Asp	Phe	Pro	Lys	Glu
		35				40						45			
Leu	Ser	Ile	Lys	Tyr	Met	Ala	Arg	Ser	Phe	Arg	Gly	Ala	Val	Ala	Ile
	50				55					60					
Val	Thr	Glu	Thr	Glu	Glu	Val	Gly	Cys	Pro	Ala	Leu	Leu	Pro	Ile	Pro
65				70				75					80		
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<210> 4463

<211> 2662

<212> DNA

<213> Homo sapiens

<400> 4463

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<210> 4464

<211> 519

<212> PRT

<213> Homo sapiens

<400> 4464

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				20				25					30		
Val	Arg	Asp	Val	Ala	Lys	Met	Leu	Pro	Thr	Leu	Gly	Gly	Glu	Gly	
				35			40					45			
Val	Ser	Arg	Ile	Tyr	Ala	Asp	Pro	Thr	Lys	Arg	Leu	Glu	Leu	Tyr	Phe
				50			55				60				
Arg	Pro	Lys	Asp	Pro	Tyr	Cys	His	Pro	Val	Cys	Ala	Asn	Arg	Phe	Ser
65					70				75					80	
Thr	Ser	Ser	Leu	Leu	Leu	Arg	Ile	Arg	Lys	Arg	Thr	Arg	Arg	Gln	Lys
				85					90					95	
Gly	Val	Leu	Gly	Thr	Glu	Ala	His	Ser	Glu	Val	Thr	Phe	Asp	Met	Glu
				100				105					110		
Ile	Leu	Gly	Ile	Ile	Ser	Thr	Ile	Tyr	Lys	Phe	Gln	Gly	Met	Ser	Asp
				115				120				125			
Phe	Gln	Tyr	Leu	Ala	Val	His	Thr	Glu	Ala	Gly	Gly	Lys	His	Thr	Ser
				130			135					140			
Met	Tyr	Asp	Lys	Val	Leu	Met	Leu	Arg	Pro	Glu	Lys	Glu	Ala	Phe	Phe
145					150					155				160	
His	Gln	Glu	Leu	Pro	Leu	Tyr	Ile	Pro	Pro	Pro	Ile	Phe	Ser	Arg	Leu
				165				170						175	
Asp	Ala	Pro	Val	Asp	Tyr	Phe	Tyr	Arg	Pro	Glu	Thr	Gln	His	Arg	Glu
				180				185					190		
Gly	Tyr	Asn	Asn	Pro	Pro	Ile	Ser	Gly	Glu	Asn	Leu	Ile	Gly	Leu	Ser

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Glu Val Pro Lys Gln Pro	Leu Glu Ala Ala Ala Gln Thr Trp Arg Arg	
225	230	235
Val Cys Thr Asn Pro Val	Asp Arg Lys Val Glu Glu Glu Leu Arg Lys	240
	245	250
Leu Phe Asp Ile Arg Pro	Ile Trp Ser Arg Asn Ala Val Lys Ala Asn	255
260	265	270
Ile Ser Val His Pro Asp	Lys Leu Lys Val Leu Leu Pro Phe Ile Ala	
275	280	285
Tyr Tyr Met Ile Thr Gly	Pro Trp Arg Ser Leu Trp Ile Arg Phe Gly	
290	295	300
Tyr Asp Pro Arg Lys Asn	Pro Asp Ala Lys Ile Tyr Gln Val Leu Asp	
305	310	315
Phe Arg Ile Arg Cys Gly	Met Lys His Gly Tyr Ala Pro Ser Asp Leu	
	325	330
Pro Val Lys Ala Lys Arg	Ser Thr Tyr Asn Tyr Ser Leu Pro Ile Thr	
340	345	350
Val Lys Lys Thr Ser Ser	Gln Leu Val Thr Met His Asp Leu Lys Gln	
355	360	365
Gly Leu Gly Arg Ser Gly	Thr Ser Gly Ala Arg Lys Pro Ala Ser Ser	
370	375	380
Lys Tyr Lys Leu Lys Asp	Ser Val Tyr Ile Phe Arg Glu Gly Ala Leu	
385	390	395
Pro Pro Tyr Arg Gln Met	Phe Tyr Gln Leu Cys Asp Leu Asn Val Glu	
	405	410
Glu Leu Gln Lys Ile Ile	His Arg Asn Asp Gly Ala Glu Asn Ser Cys	
420	425	430
Thr Glu Arg Asp Gly Trp	Cys Leu Pro Lys Thr Ser Asp Glu Leu Arg	
435	440	445
Asp Thr Met Ser Leu Met	Ile Arg Gln Thr Ile Arg Ser Lys Arg Pro	
450	455	460
Ala Leu Phe Ser Ser Ser	Ala Lys Ala Asp Gly Gly Lys Glu Gln Leu	
465	470	475
Thr Tyr Glu Ser Gly Glu	Asp Glu Glu Glu Glu Glu Glu Glu	
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<210> 4465

<211> 1291

<212> DNA

<213> Homo sapiens

<400> 4465

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180

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<210> 4466

<211> 93

<212> PRT

<213> Homo sapiens

<400> 4466

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 Asp Thr Ile Gly Gln Met Arg Arg Xaa Ala Val Gly Leu Val Asp Ala
 35 40 45
 Val Lys Ala Thr Asp Gln Tyr Cys Ala Arg Leu Arg Gln Ala Gly Ser
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<210> 4467
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1080 caccttctcc aaaccagatc caatcaaacc tcaggccgag gaaacatgct cccctcacgc
1140
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1142

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<210> 4468
<211> 170
<212> PRT
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<213> Homo sapiens

<400> 4468

Xaa Asp Val Pro Lys Val Glu Val Leu Glu Arg Glu Leu Ala Trp Leu
 1 5 10 15
 Lys Glu His Leu Ser Gln Leu Glu Ser Pro Val Val Phe Cys His Asn
 20 25 30
 Asp Leu Leu Cys Lys Asn Ile Ile Tyr Asp Ser Ile Lys Gly His Val
 35 40 45
 Arg Phe Ile Asp Tyr Glu Tyr Ala Gly Tyr Asn Tyr Gln Ala Phe Asp
 50 55 60
 Ile Gly Asn His Phe Asn Glu Phe Ala Gly Val Asn Glu Val Asp Tyr
 65 70 75 80
 Cys Leu Tyr Pro Ala Arg Glu Thr Gln Leu Gln Trp Leu His Tyr Tyr
 85 90 95
 Leu Gln Ala Gln Lys Gly Met Ala Val Thr Pro Arg Glu Val Gln Arg
 100 105 110
 Leu Tyr Val Gln Val Asn Lys Phe Ala Leu Ala Ser His Phe Phe Trp
 115 120 125
 Ala Leu Trp Ala Leu Ile Gln Asn Gln Tyr Ser Thr Ile Asp Phe Asp
 130 135 140
 Phe Leu Arg Tyr Ala Val Ile Arg Phe Asn Gln Tyr Phe Lys Val Lys
 145 150 155 160
 Pro Gln Ala Ser Ala Leu Glu Met Pro Lys
 165 170

<210> 4469

<211> 409

<212> DNA

<213> Homo sapiens

<400> 4469

atctatgatg cacaacatgc caatttggct gccacgctga gcggccatgc ctctcgggtg
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 120
 ggcctgggat ggccaagaca gttggaaagc aggagatgga caacttgaag gcattgcaca
 180
 gtgcctttaga ggcctcctgc gagccttggt ttggaagcct taacaggcct cctcccatc
 240
 tggaaatagg tagctgtgtc tgagactcct ggagaacaat taatatgagg gccaggcaga
 300
 tcacaatttc aggaaaatgg ctaccctgtg aggagagaaa gccaccaat gatgctgata
 360
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 409

<210> 4470

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4470

Ile Tyr Asp Ala Gln His Ala Asn Leu Ala Gly Thr Leu Ser Gly His

1	5	10	15
Ala Ser Trp	Val Leu Asn Val	Ala Phe Cys Pro	Asp Asp Thr His Phe
	20	25	30
Val Ser Arg	Ser Gln Cys Trp	Ser Gly Leu Gly Trp	Pro Arg Gln Leu
	35	40	45
Glu Ser Arg	Arg Trp Thr Thr		
50	55		

<210> 4471

<211> 1771

<212> DNA

<213> Homo sapiens

<400> 4471

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 120
 catccagcag gcgccttaata aatggccaaag tcattgtttg gglttctaaa taaggctctc
 180
 ctaatggcgg ggtctggcca cggctccaggt gtccctgggc agccctccga ggggcggcca
 240
 cagggcgcac tataaatgag cggctgcgca cgcaggggga ctgcaacgcy gaggagcagg
 300
 atggagatcc ctgtgcttgt gcagccgtct tggtgcgcgc gcgcctcggc cccgttgccc
 360
 ggacttttcg cgcgcggacg cctctttgac cagcgcttcg gcgaggggct gctggaggcc
 420
 gagctggctg cgtctetccc caccacgcgc gccccctact acctgcgcgc acccagcgtg
 480
 gcgctgccgc tcgcccagggt gccgacggac cccggccact ttccggtgct gctagacgtg
 540
 aagcacttct cgcgcggagga aattgctgic aaggtggtgg gcgaacacgt ggaggtgcac
 600
 gcgcgccacg aggagcgccc ggatgagcac ggattcgtcg gcgcgcgagt ccaccgtcgc
 660
 taccgcctgc cgcctggcgt ggatccggct gccgtgacgt ccgcgctgic ccccgagggg
 720
 gtccctgtcca tccaggccgc accagcgtcg gcccaggccc caccgccagc cgcagccaag
 780
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 840
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 900
 tcctggatcc tgcctgacc tccatccgtg acaactgcct gataacatag acccttccac
 960
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 1020
 ttccagaccc taccagcact accctaacct tcagccgaca gtctcagccc caccgaccca
 1080
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 1140
 aagacatccg ggtactacat ttccatccct tcctattttt gacacaaaat tatgggtgat
 1200

acagccctcc cccaacccca ggccagtcag gcacaatccc cccacccccc aaacgtcctg
 1260
 gactgcacag acctccact ccagaccatc caggcctggg tccaagacc cgtaccttc
 1320
 cctgcaacca gacagtctac aactgcccc tccagcccat ttctgtcgt gaaaccccg
 1380
 ccagccacac cagactctgg aaccttttt cgtactgccc aactcttga caccaggcca
 1440
 actagaacac ccaacaccaa actgtacaga ctctccccc ccaacctccc cagactctgc
 1500
 acggatgtcc taggcccctt ccccaactct aaccagacc catcccccta agtccctttg
 1560
 tcttgacccc caagtcttca accagatata ctcggaacc cactccccc cctcctctc
 1620
 ttctcttca agaccaact gagcaccgc tctgattccc cagaccctt etccctgcc
 1680
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 1740
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 1771

<210> 4472

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4472

Met	Glu	Ile	Pro	Val	Pro	Val	Gln	Pro	Ser	Trp	Leu	Arg	Arg	Ala	Ser
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Ala	Pro	Leu	Pro	Gly	Leu	Ser	Ala	Pro	Gly	Arg	Leu	Phe	Asp	Gln	Arg
		20						25					30		
Phe	Gly	Glu	Gly	Leu	Leu	Glu	Ala	Glu	Leu	Ala	Ala	Leu	Cys	Pro	Thr
		35					40					45			
Thr	Leu	Ala	Pro	Tyr	Tyr	Leu	Arg	Ala	Pro	Ser	Val	Ala	Leu	Pro	Val
	50					55				60					
Ala	Gln	Val	Pro	Thr	Asp	Pro	Gly	His	Phe	Ser	Val	Leu	Leu	Asp	Val
65				70					75					80	
Lys	His	Phe	Ser	Pro	Glu	Glu	Ile	Ala	Val	Lys	Val	Val	Gly	Glu	His
			85						90				95		
Val	Glu	Val	His	Ala	Arg	His	Glu	Glu	Arg	Pro	Asp	Glu	His	Gly	Phe
		100					105						110		
Val	Ala	Arg	Glu	Phe	His	Arg	Arg	Tyr	Arg	Leu	Pro	Pro	Gly	Val	Asp
		115				120					125				
Pro	Ala	Ala	Val	Thr	Ser	Ala	Leu	Ser	Pro	Glu	Gly	Val	Leu	Ser	Ile
	130					135					140				
Gln	Ala	Ala	Pro	Ala	Ser	Ala	Gln	Ala	Pro	Pro	Pro	Ala	Ala	Ala	Lys
145					150				155						160

<210> 4473

<211> 1255

<212> DNA

<213> Homo sapiens

<400> 4473

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 120
 ttgggttaagg aaatgaccaa ccagtagcgtt attctcttca aacaagagca agcccatgat
 180
 gatgccattt ggctcagttgc ttggggggaca aacaagaagg aaaactctga gacagtggtc
 240
 acaggctccc tagatgacct ggtgaaggtc tggaaatggc gtgatgagag gctggaccta
 300
 cagtggagtc tggaggggaca tcagctggga gtgggtgtctg tggacatcag ccacaccctt
 360
 cccattgctg cctccagttc tctagatgct catattcgac tctgggacct ggaaatgggc
 420
 aaacagatga agtctataga tgcaggaccg gtggatgcct ggactttggc attctctccg
 480
 gactccagc atctggcaac aggaactcac atgggggaaag tgaacatttt tgggtgggaa
 540
 agtggaaaaa aagaatactc ttgggacact agaggaaaaat tcattccttag tattgcatat
 600
 agtcctgatg gaaaatacct ggccagcgga gccatagatg gaatcatcaa tatttttgat
 660
 attgcaactg gaaaacttct gcataccctg gaaggccatg ccattgccccat tcgctccttg
 720
 accctttccc cggactccca gctccttgct actgcttcag atgatgggcta catcaagatc
 780
 tatgatgtac aacatgccaa ttgggtgggc acgctgagcg gccatgcctc ctgggtgctg
 840
 aacgttgcat tctgtcctga tgacactcac ttgttttcca gtctgtctga caaaagtgtg
 900
 aaagtgttggg atgttggaaac gaggacttgt gttcacacct tctttgatca ccaggatcag
 960
 gtctgtgggag taaatacaaa tggaaatggg tcaaaaattg tgtctgttgg agatgaccag
 1020
 gaaattcaca tctatgattg tccaatttaa acatcaaaagt ctccaggctt atgctgcaaa
 1080
 gagaatgtac ggattgatca tgacattcct taccttctta ggcttgttta aaagaaatat
 1140
 agcatttatt gtacaaaga cttaaatctt gtagatacaa tatgaatctt ttcattgttt
 1200
 attggaatg ctgttcatac tttaacataa agctttctta atgcaaaaaa aaaa
 1255

<210> 4474

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4474

Met	Thr	Asn	Gln	Tyr	Gly	Ile	Leu	Phe	Lys	Gln	Glu	Gln	Ala	His	Asp
1				5					10					15	
Asp	Ala	Ile	Trp	Ser	Val	Ala	Trp	Gly	Thr	Asn	Lys	Lys	Glu	Asn	Ser
			20					25					30		
Glu	Thr	Val	Val	Thr	Gly	Ser	Leu	Asp	Asp	Leu	Val	Lys	Val	Trp	Lys

	35		40		45
Trp	Arg	Asp	Glu	Arg	Leu
	50		55		60
Leu	Gly	Val	Val	Ser	Val
	65		70		75
Ser	Ser	Ser	Leu	Asp	Ala
			85		90
Lys	Gln	Met	Lys	Ser	Ile
			100		105
Ala	Phe	Ser	Pro	Asp	Ser
			115		120
Lys	Val	Asn	Ile	Phe	Gly
			130		135
Asp	Thr	Arg	Gly	Lys	Phe
			145		150
Lys	Tyr	Leu	Ala	Ser	Gly
			165		170
Ile	Ala	Thr	Gly	Lys	Leu
			180		185
Ile	Arg	Ser	Leu	Thr	Phe
			195		200
Ser	Asp	Asp	Gly	Tyr	Ile
			210		215
Ala	Gly	Thr	Leu	Ser	Gly
			225		230
Cys	Pro	Asp	Asp	Thr	His
			245		250
Lys	Val	Trp	Asp	Val	Gly
			260		265
His	Gln	Asp	Gln	Val	Trp
			275		280
Ile	Val	Ser	Val	Gly	Asp
			290		295
					300
Ile					
305					

<210> 4475

<211> 475

<212> DNA

<213> Homo sapiens

<400> 4475

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 tgggtgtccag actcctcttg gaggttccaat cccaccctg gcacactgtc catctctggc
 120
 tggctctgtc tgaagctgga gagccgtgca aggcgacaga gcctctctgt tggcccgctc
 180
 tggcgctctg gggcaagggc tgacttgagc tgctctctgt gctcatctgc tgcctgccag
 240
 ctgcctctcag acctctctct gggtgcagcc cgttcccaact tgagagggag gtggtcttca
 300
 ctttaggggg taggcacatc cctgtttgcg ccttgcccg acagcctcgt caatgcccg
 360

ccacttctga gggctggagg gacaggaact tcctttcttc cccctttctg tctcctgcg
 420
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 475

<210> 4476
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4476
 Met Cys Leu Pro Pro Lys Val Lys Thr Thr Ser Leu Ser Ser Gly Asn
 1 5 10 15
 Gly Leu His Pro Gly Gly Gly Leu Arg Ala Ala Gly Arg Gln Gln Met
 20 25 30
 Ser Arg Arg Ser Ser Ser Ser Gln Pro Leu Pro Gln Ser Ala Arg Thr
 35 40 45
 Gly His Thr Glu Gly Ser Val Ala Leu His Gly Ser Pro Ala Ser Arg
 50 55 60
 Gln Thr Ser Gln Arg Trp Thr Val Cys Gln Gly Trp Asp Trp Asn Ser
 65 70 75 80
 Arg Arg Ser Leu Asp Thr Ser Gly Ile Arg Glu Thr Ser Leu Gly Arg
 85 90 95
 Tyr Pro Leu Pro Ser Ser Arg Val His Ala
 100 105

<210> 4477
 <211> 1153
 <212> DNA
 <213> Homo sapiens

<400> 4477
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 120
 tagggccagg cagatgggat atgacgaatg gactgccagc tggatacaag gatgctcacc
 180
 aagcaccaag ttctcacaag ttattttatg tgacttttga ggaactgagg cattatatct
 240
 gaggacacca ggggaaaagt gtggcatctc agggaaatc agccctgggc tgtgtctaca
 300
 cacaccatga gagtgtgat gggggcgcaa tagtcttgaa aatgtataaa gtgtccagga
 360
 atggaagtgc tctttgattc attattatct tcttctctca tattccctc ccagagtctc
 420
 ctatctagga catcagcatt ctccacacaag cctaattgct tatctgagta agcagggtct
 480
 agaaattcac tttcttgata ctcatgtctt ccttctctaac actccttgat cttgcctacc
 540
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 ccaattcttc cctatatctc ctggaccagc taaagtcag gtgtttccaga gacttttgaa
 660

agtcaactta cactttttcc ttcttcattc acaaagctct tcttcctcgg gccctgggat
 720
 gtatgccttt ctctcctact gtctaatagc acctcgtaaa ttgtcaatga acctttctaa
 780
 ggggtattct tgaattocca actagattgt gagcttctgg aagacaaggc tatgtctttg
 840
 attgtgtct cccctaccac agcccagtag tttagttaca gaaaataata aatatttact
 900
 gattgattga ctttctctt gtccactagc tttaggtttg ggggccaaat tctacctcgg
 960
 attttgaaaa attcaaaactg tgaacaccac aatgttatag agcatatgag gtagtagcca
 1020
 gcatgaagga tgttttcttc ctgagaaaca gtgtcaaggg ctggaggaag agggcaaaat
 1080
 agcagactca gagggcaaat aaattttggt attacttggt cacacaaggt tatacaggtg
 1140
 ttttcttgta gga
 1153

<210> 4478

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4478

Met Trp Lys Arg Gly Glu Val Gly Lys Ile Lys Glu Cys Leu Glu Gly
 1 5 10 15
 Lys Thr Glu Tyr Gln Glu Ser Glu Phe Leu Ser Pro Ala Tyr Ser Asp
 20 25 30
 Lys Pro Leu Gly Leu Cys Glu Asn Ala Asp Val Leu Asp Arg Arg Leu
 35 40 45
 Trp Glu Gly Asn Met Lys Glu Glu Asn Asn Asn Glu Ser Lys Ser Thr
 50 55 60
 Ser Ile Pro Gly His Phe Ile His Phe Gln Asp Tyr Cys Ala Pro Ile
 65 70 75 80
 Ser Thr Leu Met Val Cys Val Asp Thr Ala Gln Gly Cys Ile Ser Leu
 85 90 95
 Arg Cys His Thr Phe Pro Leu Val Ser Ser Asp Ile Met Pro Gln Phe
 100 105 110
 Leu Gln Ser His Ile Lys
 115

<210> 4479

<211> 2158

<212> DNA

<213> Homo sapiens

<400> 4479

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 cgcgggcccc gcttttcgcg acctgctcc ggctcgact acggcgagcc tgagcgcggc
 120
 ggcggccacc gcgcagcaca gggagagatg agcagcacca gcagtaagag ggcctcgacc
 180

acggcaaccc agaggctgaa gcaggactac cttcgatta agaaagaccc ggtgccttac
240
atctgtgccg agccctctcc ttogaatatt ctcgagtggc actatgtcgt ccgaggccca
300
gagatgaccc cttatgaagg tggctattac catggaaaac taatttttcc cagagaattt
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420
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480
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540
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660
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720
gacggggaga cgcacctcgt ccagaacggg attcagctgc tcaacgggca tgcgccgggg
780
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900
gtgctgagga gcatcgcgca ggagtggagg ccaggcgccg agaccaagg cgccactgag
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1200
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1380
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1440
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1500
attccttcta gaaagtgtt ggggggtttt gctgccctgg aagccaggag cctgctcact
1560
ccaaccacaa gtcgcccttg actgcggcgg ccgcgagcgg ggcgggggct gccggtgccc
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1680
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1740
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1800

cacatcccggt gccccctgcg ctggccttca cagtaggttaa tggctccggc ccgggtgttc
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 1920
 ggctgttttcg ggccgcgtgg ctccccgggt ctggcgctgc tcccccttc tgctctgtt
 1980
 ccgtgaacttc gcttgggtgg gatgtaccgc aggtgcatcg cgtcgagggtg gggcaccggc
 2040
 gccggcaaga aacccaccct gtccggaggc gggcgtgaga caagcccagc ccgcacgcgc
 2100
 tcattcttct tcgttttttg atcagtttat tcagaattgc tctataattt accaattg
 2158

<210> 4480

<211> 308

<212> PRT

<213> Homo sapiens

<400> 4480

Xaa Arg Arg Pro Ala Ala Gly Ser Val Gly Pro Ile Pro Gly Arg Cys
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 Gly Cys Phe Gly Arg Gly Pro Arg Phe Ser Ala Pro Cys Ser Gly Leu
 20 25 30
 Asp Tyr Gly Gly Pro Glu Arg Gly Gly Pro Arg Ala Ala Gln Gly
 35 40 45
 Glu Met Ser Ser Thr Ser Ser Lys Arg Ala Pro Thr Thr Ala Thr Gln
 50 55 60
 Arg Leu Lys Gln Asp Tyr Leu Arg Ile Lys Lys Asp Pro Val Pro Tyr
 65 70 75 80
 Ile Cys Ala Glu Pro Leu Pro Ser Asn Ile Leu Glu Trp His Tyr Val
 85 90 95
 Val Arg Gly Pro Glu Met Thr Pro Tyr Glu Gly Gly Tyr Tyr His Gly
 100 105 110
 Lys Leu Ile Phe Pro Arg Glu Phe Pro Phe Lys Pro Pro Ser Ile Tyr
 115 120 125
 Met Ile Thr Pro Asn Gly Arg Phe Lys Cys Asn Thr Arg Leu Cys Leu
 130 135 140
 Ser Ile Thr Asp Phe His Pro Asp Thr Trp Asn Pro Ala Trp Ser Val
 145 150 155 160
 Ser Thr Ile Leu Thr Gly Leu Leu Ser Phe Met Val Glu Lys Gly Pro
 165 170 175
 Thr Leu Gly Ser Ile Glu Thr Ser Asp Phe Thr Lys Arg Gln Leu Ala
 180 185 190
 Val Gln Ser Leu Ala Phe Asn Leu Lys Asp Lys Val Phe Cys Glu Leu
 195 200 205
 Phe Pro Glu Val Val Glu Glu Ile Lys Gln Lys Gln Lys Ala Gln Asp
 210 215 220
 Glu Leu Ser Ser Arg Pro Gln Thr Leu Pro Leu Pro Asp Val Val Pro
 225 230 235 240
 Asp Gly Glu Thr His Leu Val Gln Asn Gly Ile Gln Leu Leu Asn Gly
 245 250 255
 His Ala Pro Gly Ala Val Pro Asn Leu Ala Gly Leu Gln Gln Ala Asn
 260 265 270
 Arg His His Gly Leu Leu Gly Gly Ala Leu Ala Asn Leu Phe Val Ile

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          275              280              285
Val Gly Phe Ala Ala Phe Ala Tyr Thr Val Lys Tyr Val Leu Arg Ser
          290              295              300
Ile Ala Gln Glu
305

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<210> 4481
<211> 320
<212> DNA
<213> Homo sapiens

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<400> 4481
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120
acgtggggag gggaccccg gctgggcttc gtaggggctt caaggacccc tgacctctgg
180
gggtgccttg acagcagggg agggcccaga gctggccttg gccatgtcca gtcctaatt
240
gacctttgtc ccttctctcc cctgcctctc tgtgcgtcgc tggaactgcc acgggagttc
300
tcacgaatgg gcacccaatt
320

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<210> 4482
<211> 101
<212> PRT
<213> Homo sapiens

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<400> 4482
Met Gly Cys Ala Trp Arg Leu Gly Gly Cys Ile Trp Thr Ala Ser Gly
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Trp Gly Leu Gly Thr Ser Cys Cys Ala Ala Arg Lys Gln Asp Ser Ala
20          25          30
Cys Pro Pro Thr Trp Gly Gly Asp Pro Gly Leu Gly Phe Val Gly Ala
35          40          45
Ser Arg Thr Pro Asp Phe Trp Gly Val Pro Asp Ser Arg Gly Gly Pro
50          55          60
Arg Ala Gly Leu Gly His Val Gln Ser Leu Ile Asp Leu Cys Pro Phe
65          70          75          80
Leu Pro Leu Pro Leu Cys Ala Ser Leu Asp Ser Pro Arg Glu Phe Ser
85          90          95
Arg Met Gly Thr Gln
100

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<210> 4483
<211> 1852
<212> DNA
<213> Homo sapiens

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<400> 4483
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60

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acaagctggc tgacccgggt tgtaaaaatg gaatttcaag cagtagtgat ggcagtaggt
120
ggaggatctc ggatgacaga cctaacttcc agcattccca aacctctgct tccagttggg
180
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<210> 4484

<211> 452

<212> PRT

<213> Homo sapiens

<400> 4484

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 Arg Trp Glu Asp Leu Ser Arg Ser Gln Val Arg Cys Tyr Val His Ile
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Ser Ile Lys Arg Ser Val Ile Gly Ser Ser Cys Leu Ile Lys Asp Arg
          370          375          380
Val Thr Ile Thr Asn Cys Leu Leu Met Asn Ser Val Thr Val Glu Glu
          385          390          395          400
Gly Ser Asn Ile Gln Gly Ser Val Ile Cys Asn Asn Ala Val Ile Glu
          405          410          415
Lys Gly Ala Asp Ile Lys Asp Cys Leu Ile Gly Ser Gly Gln Arg Ile
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<210> 4485
 <211> 513
 <212> DNA
 <213> Homo sapiens

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<210> 4486
 <211> 100
 <212> PRT
 <213> Homo sapiens

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<400> 4486
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Ser Ile Ser Leu Pro Ser Gly Ala Pro Gly Gly Gln Gly Asp Leu Leu

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          35              40              45
Pro Gln Ala Val Pro His Leu Ile Pro Lys Val Ser Ser Asn Glu Val
          50              55              60
Asp Ser Phe Lys Tyr Trp Trp Phe Trp Leu Ala Arg Val Ser Glu Gly
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Thr Glu Lys Thr Pro Lys Cys Arg Val Cys Asp Thr Ala Gln Ser Ser
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<210> 4487

<211> 387

<212> DNA

<213> Homo sapiens

<400> 4487

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<210> 4488

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4488

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Gln Ser Gln Pro Ile Leu Phe Gly Gln Met Ala Gln Lys Pro Leu Arg
          20          25          30
Leu Leu Ala Cys Gly Asp Val Glu Gly Lys Phe Asp Ile Leu Phe Asn
          35          40          45
Arg Val Gln Ala Ile Gln Lys Lys Ser Gly Asn Phe Asp Leu Leu Leu
          50          55          60
Cys Val Gly Asn Phe Phe Gly Ser Thr Gln Asp Ala Glu Trp Glu Glu
          65          70          75          80
Tyr Lys Thr Gly Ile Lys Lys Ala Pro Ile Gln Thr Tyr Val Leu Gly
          85          90          95
Ala Asn Asn Gln Glu Thr Val Lys Tyr Phe Gln Asp Ala Asp Gly Cys
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Glu Leu Ala Glu Asn Ile Thr Tyr Leu Gly Arg Lys Gly Ile Phe Thr
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<210> 4489

<211> 2390

<212> DNA

<213> Homo sapiens

<400> 4489

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<210> 4490

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4490

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Cys	Leu	Cys	Gly	Ser	Lys	Leu	Val	Ile	Asp	Trp	His	Asn	Tyr	Gly	Tyr
	65				70				75				80		
Ser	Ile	Met	Gly	Leu	Val	His	Gly	Pro	Asn	His	Pro	Leu	Val	Leu	Leu
			85				90						95		
Ala	Lys	Trp	Tyr	Glu	Lys	Phe	Phe	Gly	Arg	Leu	Ser	His	Leu	Asn	Leu

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Pro Leu Asp Leu Gln His Arg Leu Phe Met Lys Leu Gly Ser Met His
      145              150              155
Ser Pro Phe Arg Ala Arg Ser Glu Pro Glu Asp Pro Val Thr Glu Arg
      160              165              170
Ser Ala Phe Thr Glu Arg Asp Ala Gly Ser Gly Leu Val Thr Arg Leu
      180              185              190
Arg Glu Arg Pro Ala Leu Leu Val Ser Ser Thr Ser Trp Thr Glu Asp
      195              200              205
Glu Asp Phe Ser Ile Leu Leu Ala Ala Leu Glu Lys Phe Glu Gln Leu
      210              215              220
Thr Leu Asp Gly His Asn Leu Pro Ser Leu Val Cys Val Ile Thr Gly
      225              230              235
Lys Gly Pro Leu Arg Glu Tyr Tyr Ser Arg Leu Ile His Gln Lys His
      240              245              250
Phe Gln His Ile Gln Val Cys Thr Pro Trp Leu Glu Ala Glu Asp Tyr
      255              260              265
Pro Leu Leu Leu Gly Ser Ala Asp Leu Gly Val Cys Leu His Thr Ser
      270              275              280
Ser Ser Gly Leu Asp Leu Pro Met Lys Val Val Asp Met Phe Gly Cys
      285              290              295
Cys Leu Pro Val Cys Ala Val Asn Phe Lys Cys Leu His Glu Leu Val
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Lys His Glu Glu Asn Gly Leu Val Phe Glu Asp Ser Glu Glu Leu Ala
      315              320              325
Ala Gln Leu Gln Met Leu Phe Ser Asn Phe Pro Asp Pro Ala Gly Lys
      330              335              340
Leu Asn Gln Phe Arg Lys Asn Leu Arg Glu Ser Gln Gln Leu Arg Trp
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<210> 4491

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<212> DNA

<213> Homo sapiens

<400> 4491

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<211> 674

<212> PRT

<213> Homo sapiens

<400> 4492

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<212> DNA

<213> Homo sapiens

<400> 4493

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<210> 4494

<211> 111

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<213> Homo sapiens

<400> 4494

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Gly Pro Ala Ile Lys Ala Leu Ser Leu Ser Thr Phe Trp Tyr Leu Val
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<212> DNA

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<211> 560

<212> PRT

<213> Homo sapiens

<400> 4496

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<211> 840

<212> DNA

<213> Homo sapiens

<400> 4497

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<210> 4498

<211> 280

<212> PRT

<213> Homo sapiens

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1      5      10      15
Gln Lys Glu Arg Lys Arg Gln Glu Arg Leu Glu Gln Tyr Cys Gly Glu
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Pro Lys Ala Ser Thr Thr Ser Asp Gly Asp Glu Ser Pro Pro Ser Ser
35     40     45
Pro Gly Asn Pro Val Gln Gly Gln Cys Gly Glu Glu Glu Asp Ser Leu

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      50              55              60
Asp Leu Ser Ser Thr Phe Val Ser Leu Ala Leu Arg Lys Val Gly Asp
65              70              75              80
Trp Pro Leu Ser Ala Arg Arg Glu Lys Gly Leu Asn Gln Glu Pro Gln
      85              90              95
Gly Arg Gly Leu Ala Leu Gln Lys Met Gly Gln Glu Glu Glu Ser Pro
100              105              110
Pro Arg Glu Glu Arg Pro Gln Gln Ser Pro Lys Ala Ser Pro Gly Leu
115              120              125
Leu Ala Ala Ala Leu Gln Gln Ser Gln Glu Leu Ala Lys Leu Gly Thr
130              135              140
Ser Phe Ala Gln Asn Gly Phe Tyr His Glu Ala Val Val Leu Phe Thr
145              150              155              160
Gln Ala Leu Lys Leu Asn Pro Gln Asp His Arg Leu Phe Gly Asn Arg
165              170              175
Ser Phe Cys His Glu Arg Leu Gly Gln Pro Ala Trp Ala Leu Ala Asp
180              185              190
Ala Gln Val Ala Leu Thr Leu Arg Pro Gly Trp Pro Arg Gly Leu Phe
195              200              205
Arg Leu Gly Lys Ala Leu Met Gly Leu Gln Arg Phe Arg Glu Ala Ala
210              215              220
Ala Val Phe Gln Glu Thr Leu Arg Gly Gly Ser Gln Pro Asp Ala Ala
225              230              235              240
Arg Glu Leu Arg Ser Cys Leu Leu His Leu Thr Leu Gln Gly Gln Arg
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<210> 4499

<211> 562

<212> DNA

<213> Homo sapiens

<400> 4499

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<210> 4500
<211> 91
<212> PRT
<213> Homo sapiens

<400> 4500
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His Gly Leu Ser Pro Leu Asn Val Ile Ala Glu Asp Gly Thr Met Thr
35 40 45
Ser Leu Cys Gly Asp Trp Leu Gln Gly Leu His Arg Phe Val Ala Arg
50 55 60
Glu Lys Ile Met Ser Val Leu Ser Glu Arg Gly Leu Phe Arg Gly Leu
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Gln Asn His Pro Met Val Leu Pro Ile Cys Arg
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<210> 4501
<211> 1866
<212> DNA
<213> Homo sapiens

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<210> 4502

<211> 267

<212> PRT

<213> Homo sapiens

<400> 4502

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 35 40 45
 Ala Ala Pro Gly Gln Arg Leu Pro Glu Ser Leu Arg Ala Thr Tyr Arg
 50 55 60
 Glu Gly Phe Tyr Asn Glu Tyr Met Gln Arg Val Phe Lys Tyr Leu Gly

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Pro	Leu	Ser	Pro	Gly	Met	Ser	Asp	Leu	Leu	Gln	Phe	Val	Ala	Lys	Gln
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Gly	Ala	Cys	Phe	Glu	Val	Ile	Leu	Ile	Ser	Asp	Ala	Asn	Thr	Phe	Gly
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Val	Glu	Ser	Ser	Leu	Arg	Ala	Ala	Gly	His	His	Ser	Leu	Phe	Arg	Arg
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Ile	Leu	Ser	Asn	Pro	Ser	Gly	Pro	Asp	Ala	Arg	Gly	Leu	Leu	Ala	Leu
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Arg	Pro	Phe	His	Thr	His	Ser	Cys	Ala	Arg	Cys	Pro	Ala	Asn	Met	Cys
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Lys	His	Lys	Val	Leu	Ser	Asp	Tyr	Leu	Arg	Glu	Arg	Ala	His	Asp	Gly
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Val	His	Phe	Glu	Arg	Leu	Phe	Tyr	Val	Gly	Asp	Gly	Ala	Asn	Asp	Phe
	195						200					205			
Cys	Pro	Met	Gly	Leu	Leu	Ala	Gly	Gly	Asp	Val	Ala	Phe	Pro	Arg	Arg
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Gly	Tyr	Pro	Met	His	Arg	Leu	Ile	Gln	Glu	Ala	Gln	Lys	Ala	Glu	Pro
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Ser	Ser	Phe	Arg	Ala	Ser	Val	Val	Pro	Trp	Glu	Thr	Ala	Ala	Asp	Val
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Arg	Leu	His	Leu	Gln	Gln	Val	Leu	Lys	Ser	Cys					
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<210> 4503

<211> 1983

<212> DNA

<213> Homo sapiens

<400> 4503

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180 gaccgaattg aaatctttcc ctgcggaatg gcacagacca tcatgaaggc tcgattaaag

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300 cgacagatcc taaagaagat aatagagact aaaatgttga tgggcgaagt gatgagagaa

360 gctgcctttt cactagctga agccaagttc acagcaggtg acttcagcac tacagttatc

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660

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 1983

<210> 4504

<211> 250

<212> PRT

<213> Homo sapiens

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10

15

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 35 40 45
 Lys Lys Ile Ile Glu Thr Lys Met Leu Met Gly Glu Val Met Arg Glu
 50 55 60
 Ala Ala Phe Ser Leu Ala Glu Ala Lys Phe Thr Ala Gly Asp Phe Ser
 65 70 75 80
 Thr Thr Val Ile Gln Asn Val Asn Lys Ala Gln Val Lys Ile Arg Ala
 85 90 95
 Lys Lys Asp Asn Val Ala Gly Val Thr Leu Pro Val Phe Glu His Tyr
 100 105 110
 His Glu Gly Thr Asp Ser Tyr Glu Leu Thr Gly Leu Ala Arg Gly Gly
 115 120 125
 Glu Gln Leu Ala Lys Leu Lys Arg Asn Tyr Ala Lys Ala Val Glu Leu
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 Leu Val Glu Leu Ala Ser Leu Gln Thr Ser Phe Val Thr Leu Asp Glu
 145 150 155 160
 Ala Ile Lys Ile Thr Asn Arg Arg Val Asn Ala Ile Glu His Gly Glu
 165 170 175
 Tyr Val Ile Ile Pro Arg Ile Glu Arg Thr Leu Ala Tyr Ile Ile Thr
 180 185 190
 Glu Leu Asp Glu Arg Glu Arg Glu Glu Phe Tyr Arg Leu Lys Lys Ile
 195 200 205
 Gln Glu Lys Lys Lys Ile Leu Lys Glu Lys Ser Glu Lys Asp Leu Glu
 210 215 220
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<210> 4505

<211> 379

<212> DNA

<213> Homo sapiens

<400> 4505

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<210> 4506

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4506

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Arg Arg Gln Trp Trp Leu Trp Leu Ser Ser Leu Ser Asn Gln Ile His
 35           40           45
Pro Thr Pro Ser Ala Gln Gly Gln Ala Ala Leu Arg Gln Thr Cys Pro
 50           55           60
His Leu Arg Glu Ser Gly Pro Leu Ser Val Arg His Val Ala Leu Leu
 65           70           75           80
Ala Leu Glu Thr Ala Ser His Pro Ser Gly Pro His Thr Asn Gln Ala
 85           90           95
Pro Ser Pro Ala Thr Ser Pro Lys Cys Pro Ser Glu Pro Ala Thr Pro
100           105           110
Ser Ser Thr Asp Ser Leu Ile Lys Ile
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<210> 4507

<211> 3664

<212> DNA

<213> Homo sapiens

<400> 4507

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<210> 4508

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4508

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Ser	Glu	Val	Val	Val	Lys
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Phe	Gly	Phe	Val	Thr	Phe
	50		55		60
Met	Ala	Met	Asn	Gly	Lys
	65		70		75
Gln	Ala	Gly	Lys	Ser	Ser
			85		90
Ser	Ala	Gly	Gly	Arg	Gly
			100		105
Gly	Phe	Ser	Arg	Gly	Gly
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Glu	Ser	Arg	Ser	Gly	Gly
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Arg	Ser	Gln	Ser	Gly	Gly
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<210> 4509

<211> 11680

<212> DNA

<213> Homo sapiens

<400> 4509

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		290				295					300																			
Arg	Phe	Glu	Ser	Asp	Arg	Asp	Arg	Asp	His	Glu	Arg	Arg	Pro	Ile	Glu															
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Ser	Pro	Ser	Gln	Ala	Glu	Arg	Leu	Pro	Ser	Asp	Ser	Glu	Arg	Arg	Leu															
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Tyr	Ser	Arg	Ser	Ser	Asp	Arg	Ser	Gly	Ser	Cys	Ser	Ser	Leu	Ser	Pro															
		355				360						365																		
Pro	Arg	Tyr	Glu	Lys	Leu	Asp	Lys	Ser	Arg	Leu	Glu	Arg	Tyr	Thr	Lys															
		370				375					380</																			

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 Leu Lys Pro Glu Gln Pro Ala Asp Gly Val Ser Ala Val Asp Leu Glu
 565 570 575
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 580 585 590
 Glu Lys Gln Lys Pro Glu Val Lys Lys Ser Ser Pro Glu Met Glu Asp
 595 600 605
 Ala Arg Val Leu Ser Lys Lys Gln Pro Asp Val Ser Ser Arg Glu Val
 610 615 620
 Ile Leu Leu Arg Glu Gly Glu Ala Glu Arg Lys Pro Val Arg Lys Glu
 625 630 635
 Ile Leu Lys Arg Glu Ser Lys Lys Ile Lys Leu Asp Arg Leu Asn Thr
 645 650 655
 Val Ala Ser Pro Lys Asp Cys Gln Glu Leu Ala Ser Ile Ser Val Gly
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 Ser Gly Ser Arg Pro Ser Ser Asp Leu Gln Ala Arg Leu Gly Glu Leu
 675 680 685
 Ala Gly Glu Ser Val Glu Asn Gln Glu Val Gln Ser Lys Lys Pro Ile
 690 695 700
 Pro Ser Lys Pro Gln Leu Lys Gln Leu Gln Val Leu Asp Asp Gln Gly
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 Pro Glu Arg Glu Asp Val Arg Lys Asn Tyr Cys Ser Leu Arg Asp Glu
 725 730 735
 Thr Pro Glu Arg Lys Ser Gly Gln Glu Lys Ser His Ser Val Asn Thr
 740 745 750
 Glu Glu Lys Ile Gly Ile Asp Ile Asp His Thr Gln Ser Tyr Arg Lys
 755 760 765
 Gln Met Glu Gln Ser Arg Arg Lys Gln Gln Met Glu Met Glu Ile Ala
 770 775 780
 Lys Ser Glu Lys Phe Gly Ser Pro Lys Lys Asp Val Asp Glu Tyr Glu
 785 790 795
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 Asp Asp Ser Pro Pro Ser Lys Lys Lys Arg Met Asp His Val Asp Phe
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 Asp Ile Cys Thr Lys Arg Glu Arg Asn Tyr Arg Ser Ser Arg Gln Ile
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 Ser Glu Asp Ser Glu Arg Thr Gly Gly Ser Pro Ser Val Arg His Gly
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 Ser Phe His Glu Asp Glu Asp Pro Ile Gly Ser Pro Arg Leu Leu Ser
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 Val Lys Gly Ser Pro Lys Val Asp Glu Lys Val Leu Pro Tyr Ser Asn
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 Ile Thr Val Arg Glu Glu Ser Leu Lys Phe Asn Pro Tyr Asp Ser Ser
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 Arg Arg Glu Gln Met Ala Asp Met Ala Lys Ile Lys Leu Ser Val Leu
 915 920 925
 Asn Ser Glu Asp Glu Leu Asn Arg Trp Asp Ser Gln Met Lys Gln Asp

930
 Ala Gly Arg Phe Asp Val Ser Phe Pro Asn Ser Ile Ile Lys Arg Asp
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 1330 1335 1340
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 Gln Lys Ser Glu Glu Ala Asn Glu Pro Lys Ala Glu Lys Pro Asp Ala

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 Glu Ser Gln Pro Pro Ala Ser Glu Asp Leu Glu Val Asp Pro Pro Val
 1395 1400 1405
 Ala Ala Lys Asp Lys Lys Pro Asn Lys Ser Lys Arg Ser Lys Thr Pro
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 Val Gln Ala Ala Ala Val Ser Ile Val Glu Lys Pro Val Thr Arg Lys
 1425 1430 1435 1440
 Ser Glu Arg Ile Asp Arg Glu Lys Leu Lys Arg Ser Asn Ser Pro Arg
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 Gly Glu Ala Gln Lys Leu Leu Glu Leu Lys Met Glu Ala Glu Lys Ile
 1460 1465 1470
 Thr Arg Thr Ala Ser Lys Asn Ser Ala Ala Asp Leu Glu His Pro Glu
 1475 1480 1485
 Pro Ser Leu Pro Leu Ser Arg Thr Arg Arg Arg Asn Val Arg Ser Val
 1490 1495 1500
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 Val Glu Gln Pro Arg Val Thr Arg Lys Arg Leu Glu Arg Glu Leu Gln
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 Glu Ala Ala Ala Val Pro Thr Thr Pro Arg Arg Gly Arg Pro Pro Lys
 1540 1545 1550
 Thr Arg Arg Arg Ala Asp Glu Glu Glu Glu Asn Glu Ala Lys Glu Pro
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 Ala Glu Thr Leu Lys Pro Pro Glu Gly Trp Arg Ser Pro Arg Ser Gln
 1570 1575 1580
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 1715 1720 1725
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 1730 1735 1740
 Pro Glu Lys Glu Asp Val Ser Ala Ser Gly Pro Ser Pro Glu Ala Thr
 1745 1750 1755 1760
 Gln Leu Ala Lys Gln Met Glu Leu Glu Gln Ala Val Glu His Ile Ala
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 Lys Leu Ala Glu Ala Ser Ala Ser Ala Ala Tyr Lys Ala Asp Ala Pro
 1780 1785 1790
 Glu Gly Leu Ala Pro Glu Asp Arg Asp Lys Pro Ala His Gln Ala Ser

1795	1800	1805
Glu Thr Glu Leu Ala Ala Ala Ile Gly Ser Ile Ile Asn Asp Ile Ser		
1810	1815	1820
Gly Glu Pro Glu Asn Phe Pro Ala Pro Pro Tyr Pro Gly Glu Ser		
1825	1830	1835
Gln Thr Asp Leu Gln Pro Pro Ala Gly Ala Gln Ala Leu Gln Pro Ser		
	1845	1850
Glu Glu Gly Met Glu Thr Asp Glu Ala Val Ser Gly Ile Leu Glu Thr		
	1860	1865
Glu Ala Ala Thr Glu Ser Ser Arg Pro Pro Val Asn Ala Pro Asp Pro		
	1875	1880
Ser Ala Gly Pro Thr Asp Thr Lys Glu Ala Arg Gly Asn Ser Ser Glu		
	1890	1895
Thr Ser His Ser Val Pro Glu Ala Lys Gly Ser Lys Glu Val Glu Val		
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Thr Leu Val Arg Lys Asp Lys Gly Arg Gln Lys Thr Thr Arg Ser Arg		
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Arg Lys Arg Asn Thr Asn Lys Lys Val Val Ala Pro Val Glu Ser His		
	1940	1945
Val Pro Glu Ser Asn Gln Ala Gln Gly Glu Ser Pro Ala Ala Asn Glu		
	1955	1960
Gly Thr Thr Val Gln His Pro Glu Ala Pro Gln Glu Glu Lys Gln Ser		
	1970	1975
Glu Lys Pro His Ser Thr Pro Pro Gln Ser Cys Thr Ser Asp Leu Ser		
1985	1990	1995
Lys Ile Pro Ser Thr Glu Asn Ser Ser Gln Glu Ile Ser Val Glu Glu		
	2005	2010
Arg Thr Pro Thr Lys Ala Ser Val Pro Pro Asp Leu Pro Pro Pro		
	2020	2025
Gln Pro Ala Pro Val Asp Glu Glu Pro Gln Ala Arg Phe Arg Val His		
	2035	2040
Ser Ile Ile Glu Ser Asp Pro Val Thr Pro Pro Ser Asp Pro Ser Ile		
	2050	2055
Pro Ile Pro Thr Leu Pro Ser Val Thr Ala Ala Lys Leu Ser Pro Pro		
2065	2070	2075
Val Ala Ser Gly Gly Ile Pro His Gln Ser Pro Pro Thr Lys Val Thr		
	2085	2090
Glu Trp Ile Thr Arg Gln Glu Glu Pro Arg Ala Gln Ser Thr Pro Ser		
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Pro Ala Leu Pro Pro Asp Thr Lys Ala Ser Asp Val Asp Thr Ser Ser		
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Ser Thr Leu Arg Lys Ile Leu Met Asp Pro Lys Tyr Val Ser Ala Thr		
	2130	2135
Ser Val Thr Ser Thr Ser Val Thr Thr Ala Ile Ala Glu Pro Val Ser		
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Ala Ala Pro Cys Leu His Glu Ala Pro Pro Pro Pro Val Asp Ser Lys		
2165	2170	2175
Lys Pro Leu Glu Glu Lys Thr Ala Pro Pro Val Thr Asn Asn Ser Glu		
	2180	2185
Ile Gln Ala Ser Glu Val Leu Val Ala Ala Asp Lys Glu Lys Val Ala		
	2195	2200
Pro Val Ile Ala Pro Lys Ile Thr Ser Val Ile Ser Arg Met Pro Val		
	2210	2215
Ser Ile Asp Leu Glu Asn Ser Gln Lys Ile Thr Leu Ala Lys Pro Ala		

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 2260 2265 2270
 Val Thr Thr Leu Lys Ser Leu Val Ser Thr Pro Ala Gly Pro Val Asn
 2275 2280 2285
 Val Leu Lys Gly Pro Val Asn Val Leu Thr Gly Pro Val Asn Val Leu
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 2305 2310 2315 2320
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 2325 2330 2335
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 2355 2360 2365
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 2420 2425 2430
 Gln Ile Pro Pro Ala Ser Ala Met Asp Ile Glu Phe Gln Gln Ser Val
 2435 2440 2445
 Ser Lys Ser Gln Val Lys Pro Asp Ser Val Thr Ala Ser Gln Pro Pro
 2450 2455 2460
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 2545 2550 2555
 Val Thr Leu Lys Ile Glu Thr Lys Val Leu Gln Pro Ala Asn Leu Gly
 2565 2570 2575
 Ser Thr Leu Thr Pro His His Pro Pro Ala Leu Pro Ser Lys Leu Pro
 2580 2585 2590
 Thr Glu Val Asn His Val Pro Ser Gly Pro Ser Ile Pro Ala Asp Arg
 2595 2600 2605
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 2645 2650 2655
 Ala Gly Ile Pro Val Pro Gln Phe Ile Ser Ser Ile His Pro Glu Gln

2660 2665 2670
 Ser Val Ile Met Pro Pro His Ser Ile Thr Gln Thr Val Ser Leu Ser
 2675 2680 2685
 His Leu Ser Gln Gly Glu Val Arg Met Asn Thr Pro Thr Leu Pro Ser
 2690 2695 2700
 Ile Thr Tyr Ser Ile Arg Pro Glu Ala Leu His Ser Pro Arg Ala Pro
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 Leu Gln Pro Gln Gln Ile Glu Val Arg Ala Pro Gln Arg Ala Ser Thr
 2725 2730 2735
 Pro Gln Pro Ala Pro Ala Gly Val Pro Ala Leu Ala Ser Gln His Pro
 2740 2745 2750
 Pro Glu Glu Glu Val His Tyr His Leu Pro Val Ala Arg Ala Thr Ala
 2755 2760 2765
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 2770 2775 2780
 Pro Tyr Thr Val Pro Arg Asp Val Arg Ile Met Val His Pro His Val
 2785 2790 2795 2800
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 2995 3000 3005
 Pro Pro Glu Pro His Thr Gln Val Gln Arg Ala Gln Ala Glu Thr Gly
 3010 3015 3020
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 Pro Val Ser Leu Pro Thr Gln Thr Ala Pro Lys Gln Pro Leu Phe Val
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 Pro Thr Thr Ser Gly Pro Ser Thr Pro Pro Gly Leu Val Leu Pro His
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 Thr Glu Phe Gln Pro Ala Pro Lys Gln Asp Ser Ser Pro His Leu Thr
 3075 3080 3085
 Ser Gln Arg Pro Val Asp Met Val Gln Leu Leu Lys Lys Tyr Pro Ile

3090 3095 3100
 Val Trp Gln Gly Leu Leu Ala Leu Lys Asn Asp Thr Ala Ala Val Gln
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 Leu Ser Glu Gly Gly Pro Pro Leu Arg Ile Ala Gln Arg Met Arg Leu
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 Ala Ser Val Glu Thr Asp Tyr Cys Leu Leu Leu Ala Leu Pro Cys Gly
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 Arg Asp Gln Glu Asp Val Val Ser Gln Thr Glu Ser Leu Lys Ala Ala
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 Phe Ile Thr Tyr Leu Gln Ala Lys Gln Ala Ala Gly Ile Ile Asn Val
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 Pro Asn Pro Gly Ser Asn Gln Pro Ala Tyr Val Leu Gln Ile Phe Pro
 3220 3225 3230
 Pro Cys Glu Phe Ser Glu Ser His Leu Ser Arg Leu Ala Pro Asp Leu
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<211> 1375

<212> DNA

<213> Homo sapiens

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<211> 244

<212> PRT

<213> Homo sapiens

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 35 40 45
 Arg Glu Glu Glu Lys Glu Ser Asp Ser Asp Ser Glu Gly Pro Ile
 50 55 60
 Gln Tyr Arg Asp Glu Glu Asp Glu Asp Glu Ser Tyr Gln Ser Ala Leu
 65 70 75 80
 Ala Asn Lys Val Lys Arg Lys Asp Thr Leu Ala Met Lys Leu Asn His
 85 90 95
 Arg Pro Ser Glu Pro Glu Leu Asn Leu Asn Ser Trp Pro Cys Lys Ser
 100 105 110
 Lys Glu Glu Trp Asn Glu Ile Arg His Gln Ile Gly Asn Thr Leu Ile
 115 120 125
 Arg Arg Leu Ser Gln Arg Pro Thr Pro Glu Glu Leu Glu Gln Arg Asn
 130 135 140
 Ile Leu Gln Pro Lys Asn Glu Ala Asp Arg Gln Ala Glu Lys Arg Glu
 145 150 155 160
 Ile Lys Arg Arg Leu Thr Arg Lys Leu Ser Gln Arg Pro Thr Val Ala
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 Thr Asp Ala Gln Asp Tyr Asp Arg Arg Ala Asp Lys Pro Trp Thr Lys


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Leu Thr Pro Ala Asp Lys Ala Ala Ile Arg Lys Glu Leu Asn Glu Phe
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420
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545

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 <212> PRT
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Ser Met Ser His Leu Leu Lys Gly Asn Ser Glu Glu Lys Ser Leu Met
      35      40      45
Ile Met Lys Met Ile Ser Ala Thr Glu Gly Pro Val Lys Ala Arg Glu
      50      55      60
Val Gln Lys Phe Thr Glu Asp Leu Val Gly Ser Val Val His Val Leu
      65      70      75      80
Ser His Arg Gln Glu Leu Arg Gly Trp Thr Gly Lys Glu Ala Pro Gly
      85      90      95
Pro Asn Pro Arg Val Gln Val Leu Thr Ala Gln Leu Leu Ser Asp Met

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 <212> DNA
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<210> 4516

<211> 901

<212> PRT

<213> Homo sapiens

<400> 4516

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 65 70 75 80
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 Pro Pro Gly Val Ala Ala Leu Leu Ala Phe Pro Glu Ala Arg Pro Glu
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 Phe His Leu Gln Leu His Trp Ala Ser Pro Leu Glu Thr Leu Leu Asp
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 Val Leu Val Ala Val Leu Gln Ala His Ala Trp Glu Asp Val Gly Leu
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 Ala Leu Cys Arg Thr Gln Asp Pro Gly Gly Leu Val Ala Leu Trp Thr
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 Ser Arg Ala Gly Arg Pro Pro Gln Leu Val Leu Asp Leu Ser Arg Arg
 195 200 205
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 210 215 220
 Pro Val Gly Gly Glu Ala Pro Val Pro Ala Ala Val Leu Leu Gly Cys
 225 230 235 240
 Asp Ile Ala Arg Ala Arg Arg Val Leu Glu Ala Val Pro Pro Gly Pro
 245 250 255
 His Trp Leu Leu Gly Thr Pro Leu Pro Lys Ala Leu Pro Thr Ala
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 Gly Leu Pro Pro Gly Leu Leu Ala Leu Gly Glu Val Ala Arg Pro Pro
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 Leu Glu Ala Ala Ile His Asp Ile Val Gln Leu Val Ala Arg Ala Leu

290		295		300
Gly Ser Ala Ala Gln Val Gln Pro Lys Arg Ala Leu Leu Pro Ala Pro				
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Val Asn Cys Gly Asp Leu Gln Pro Ala Gly Pro Glu Ser Pro Gly Arg				
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Phe Leu Ala Arg Phe Leu Ala Asn Thr Ser Phe Gln Gly Arg Thr Gly				
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Pro Val Trp Val Thr Gly Ser Ser Gln Val His Met Ser Arg His Phe				
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Lys Val Trp Ser Leu Arg Arg Asp Pro Arg Gly Ala Pro Ala Trp Ala				
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Thr Val Gly Ser Trp Arg Tyr Gly Gln Leu Asp Leu Glu Pro Gly Gly				
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Leu Arg Val Val Thr Leu Leu Glu His Pro Phe Val Phe Ala Arg Asp				
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Pro Asp Glu Asp Gly Gln Cys Pro Ala Gly Gln Leu Cys Leu Asp Pro				
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Gly Thr Asn Asp Ser Ala Thr Leu Asp Ala Leu Phe Ala Ala Leu Ala				
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Asn Gly Ser Ala Pro Arg Ala Leu Arg Lys Cys Tyr Gly Tyr Cys				
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Leu Tyr Leu Val Gly Asp Gly Lys Tyr Gly Ala Leu Arg Asp Gly Arg				
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Thr Val Tyr Glu Trp Arg Ser Pro Tyr Gly Leu Thr Pro Arg Gly Arg				
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Asn Arg Ser Thr Val Phe Ser Tyr Ser Ser Ala Leu Asn Leu Cys Tyr				
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Ala Ile Leu Phe Arg Arg Thr Val Ser Ser Lys Thr Pro Lys Cys Pro				
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Leu Ser Ser Tyr Thr Ala Asn Leu Ala Ala Val Met Val Gly Asp Lys				
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Thr Phe Glu Glu Leu Ser Gly Ile His Asp Pro Lys Leu His His Pro				
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Ala Gln Gly Phe Arg Phe Gly Thr Val Trp Glu Ser Ser Ala Glu Ala				
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Tyr Ile Lys Lys Ser Phe Pro Asp Met His Ala His Met Arg Arg His				
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Ser Ala Pro Thr Thr Pro Arg Gly Val Ala Met Leu Thr Ser Asp Pro				

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Val Ser Ile Asp Ala Asp Cys Lys Leu Leu Thr Val Gly Lys Pro Phe
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Ala Ile Glu Gly Tyr Gly Ile Gly Leu Pro Gln Asn Ser Pro Leu Thr
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Ser Asn Leu Ser Glu Phe Ile Ser Arg Tyr Lys Ser Ser Gly Phe Ile
785              790              795              800
Asp Leu Leu His Asp Lys Trp Tyr Lys Met Val Pro Cys Gly Lys Arg
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Val Phe Ala Val Thr Glu Thr Leu Gln Met Ser Ile Tyr His Phe Ala
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Gly Leu Phe Val Leu Leu Cys Leu Gly Leu Gly Ser Ala Leu Leu Ser
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Ser Leu Gly Glu His Ala Phe Phe Arg Leu Ala Leu Pro Arg Ile Arg
              850              855              860
Lys Gly Ser Arg Leu Gln Tyr Trp Leu His Thr Ser Gln Lys Ile His
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<210> 4517

<211> 2275

<212> DNA

<213> Homo sapiens

<400> 4517

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<210> 4518

<211> 650

<212> PRT

<213> Homo sapiens

<400> 4518

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Val Ser Ser Leu Leu Leu Gln Glu Glu Pro Leu Ala Gly Gly Lys
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Pro Gly Ala Asp Gly Gly Ser Leu Glu Ala Val Arg Leu Gly Pro Ser
 50          55          60
Ser Gly Leu Leu Val Asp Trp Leu Glu Met Leu Asp Pro Glu Val Val
 65          70          75          80
Ser Ser Cys Pro Asp Leu Gln Leu Arg Leu Leu Phe Ser Arg Arg Lys
 85          90          95
Gly Lys Gly Gln Ala Gln Val Pro Ser Phe Arg Pro Tyr Leu Leu Thr
 100          105          110
Leu Phe Thr His Gln Ser Ser Trp Pro Thr Leu His Gln Cys Ile Arg
 115          120          125
Val Leu Leu Gly Lys Ser Arg Glu Gln Arg Phe Asp Pro Ser Ala Ser
 130          135          140
Leu Asp Phe Leu Trp Ala Cys Ile His Val Pro Arg Ile Trp Gln Gly
 145          150          155          160
Arg Asp Gln Arg Thr Pro Gln Lys Arg Arg Glu Glu Leu Val Leu Arg
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Met Ala Pro Tyr Met Lys Arg Leu Ser Arg Gly Gln Thr Val Glu Gly
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Glu Ser Gly Pro Ala Ser Pro Thr Pro Asp Leu Leu Glu Val Leu Ser
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Ile Ala Ala Ala Phe Leu Pro Thr Phe Met Tyr Cys Leu Gly Ser Gln
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Asp Phe Glu Val Val Gln Thr Ala Leu Arg Asn Leu Pro Glu Tyr Ala
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Leu Leu Cys Gln Glu His Ala Ala Val Leu Leu His Arg Ala Phe Leu
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<210> 4519

<211> 2326

<212> DNA

<213> Homo sapiens

<400> 4519

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<210> 4520

<211> 617

<212> PRT

<213> Homo sapiens

<400> 4520

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Glu	Cys	Ile	Lys	Gly	Glu	Glu	Gly	Ile	Gln	Val	Arg	Glu	Ile	Ala	Cys
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Phe	Glu	Pro	Lys	Pro	Leu	Leu	Glu	Gln	Ala	Cys	Leu	Ile	Pro	Cys	Gln
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Gln	Ala	Arg	Arg	Arg	Gly	Lys	Asn	Lys	Glu	Arg	Glu	Lys	Asp	Arg	Ser
	210					215						220			
Lys	Gly	Val	Lys	Asp	Pro	Glu	Ala	Arg	Glu	Leu	Ile	Lys	Lys	Lys	Arg
	225				230					235				240	
Asn	Arg	Asn	Arg	Gln	Asn	Arg	Gln	Glu	Asn	Lys	Tyr	Trp	Asp	Ile	Gln
			245						250					255	
Ile	Gly	Tyr	Gln	Thr	Arg	Glu	Val	Met	Cys	Ile	Asn	Lys	Thr	Gly	Lys
		260						265					270		
Ala	Ala	Asp	Leu	Ser	Phe	Cys	Gln	Gln	Glu	Lys	Leu	Pro	Met	Thr	Phe
		275					280					285			
Gln	Ser	Cys	Val	Ile	Thr	Lys	Glu	Cys	Gln	Val	Ser	Glu	Trp	Ser	Glu

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      290              295              300
Trp Ser Pro Cys Ser Lys Thr Cys His Asp Met Val Ser Pro Ala Gly
305              310              315
Thr Arg Val Arg Thr Arg Thr Ile Arg Gln Phe Pro Ile Gly Ser Glu
      325              330              335
Lys Glu Cys Pro Glu Phe Glu Glu Lys Glu Pro Cys Leu Ser Gln Gly
      340              345              350
Asp Gly Val Val Pro Cys Ala Thr Tyr Gly Trp Arg Thr Thr Glu Trp
      355              360              365
Thr Glu Cys Arg Val Asp Pro Leu Leu Ser Gln Gln Asp Lys Arg Arg
      370              375              380
Gly Asn Gln Thr Ala Leu Cys Gly Gly Gly Ile Gln Thr Arg Glu Val
385              390              395              400
Tyr Cys Val Gln Ala Asn Glu Asn Leu Leu Ser Gln Leu Ser Thr His
      405              410              415
Lys Asn Lys Glu Ala Ser Lys Pro Met Asp Leu Lys Leu Cys Thr Gly
      420              425              430
Pro Ile Pro Asn Thr Thr Gln Leu Cys His Ile Pro Cys Pro Thr Glu
      435              440              445
Cys Glu Val Ser Pro Trp Ser Ala Trp Gly Pro Cys Thr Tyr Glu Asn
      450              455              460
Cys Asn Asp Pro Gln Gly Lys Lys Gly Phe Lys Leu Arg Lys Arg Arg
465              470              475              480
Ile Thr Asn Glu Pro Thr Gly Gly Ser Gly Leu Thr Gly Asn Cys Pro
      485              490              495
His Leu Leu Glu Ala Ile Pro Cys Glu Glu Pro Ala Cys Tyr Asp Trp
      500              505              510
Lys Ala Val Arg Leu Gly Asp Cys Glu Pro Asp Asn Gly Lys Glu Cys
      515              520              525
Gly Pro Gly Thr Gln Val Gln Glu Val Val Cys Ile Asn Ser Asp Gly
      530              535              540
Glu Glu Val Asp Arg Gln Leu Cys Arg Asp Ala Ile Phe Pro Ile Pro
545              550              555              560
Val Ala Cys Asp Ala Pro Cys Pro Lys Asp Cys Val Leu Ser Thr Trp
      565              570              575
Ser Thr Trp Ser Ser Cys Ser His Thr Cys Ser Gly Lys Thr Thr Glu
      580              585              590
Gly Lys Gln Ile Arg Ala Arg Ser Ile Leu Ala Tyr Ala Gly Glu Glu
      595              600              605
Gly Glu Ser Pro Ala Ser Asp Ala Ile
610              615

<210> 4521
<211> 1071
<212> DNA
<213> Homo sapiens

<400> 4521
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tcagaagaaa tgaataaatg ccttcaaacy actgaggaaa aataattatt aacataata
120
ttataccaat ataacaatt actcaggaaa aaaagaaaat aaaaacttgc aagggctaaa
180

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ataacttgct taccacaaa gatgcttgct ctaagaactg tgaagggatt caagaggaaa
 240
 agtacacca gagagggctc atacatgtcc tctcccccct ctcctccacc accaggacac
 300
 acagaaactg cctcctcttt tcagccctct cctttctcag ctgactttga gctacaaata
 360
 tcccttctct acttggagag ccccatattca ttacaggaat ttgcttttag ttttattatc
 420
 attttagtct atgtcttaga ttgggctgct ataacaaggt gccataggct gagcggctta
 480
 aacaacaac atcctatcc cacagttaca gaggctgaga agcctggggg caaggtacca
 540
 gcatggtctg attctgttct ggaggtctgg aaatccaaga tgggaagcact ggtaggtttg
 600
 gtgtctggga gggcttctct ctgcttccaa gatgggtgct tgtcgtcgca tcttccagag
 660
 ggaaggaatg ctgtgtcctt gcagcacaga agaaacacat ctgaaaagaa atcaagcaga
 720
 aaagtgtgaa ataaagagat ggaatatata tatgaaaact actacatata ggaagggatg
 780
 tagcaaagac acagagagaa tataatttaa ggcaaaaagc ttcaatagga tttcaagaca
 840
 aaccttgcat actaaaaaaa ggaacacaaa aataaaccaa aagaaaccca aaacctgaa
 900
 cttgcaggag aattttccaa agccgtaatt ataatgagag tgtttttaag tctataagaa
 960
 attaatatat caaacaata aagattaata agaatttggg atttgtatga aatggcaag
 1020
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 1071

<210> 4522

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4522

Met	Leu	Ala	Leu	Arg	Thr	Val	Lys	Gly	Phe	Lys	Arg	Lys	Ser	Thr	Pro
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Arg	Glu	Gly	Ser	Tyr	Met	Ser	Ser	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Gly
			20					25						30	
His	Thr	Glu	Thr	Ala	Ser	Ser	Phe	Gln	Pro	Ser	Pro	Phe	Ser	Ala	Asp
			35				40					45			
Phe	Glu	Leu	Gln	Ile	Ser	Leu	Leu	Tyr	Leu	Glu	Ser	Pro	Ile	Ser	Leu
			50				55					60			
Gln	Glu	Phe	Ala	Leu	Ser	Phe	Ile	Ile	Ile	Leu	Val	Tyr	Val	Leu	Asp
			65				70				75			80	
Trp	Ala	Ala	Ile	Thr	Arg	Cys	His	Arg	Leu	Ser	Gly	Leu	Asn	Asn	Lys
			85						90				95		
His	Ser	Tyr	Pro	Thr	Val	Thr	Glu	Ala	Glu	Lys	Pro	Gly	Val	Lys	Val
			100					105					110		
Pro	Ala	Trp	Ser	Asp	Ser	Val	Leu	Glu	Ala	Gly	Lys	Ser	Lys	Met	Glu
			115				120					125			
Ala	Leu	Val	Gly	Leu	Val	Ser	Gly	Arg	Ala	Ser	Leu	Cys	Phe	Gln	Asp

130		135		140	
Gly Ala Leu Ser Leu His Leu Pro Glu Gly Arg Asn Ala Val Ser Leu					
145		150		155	160
Gln His Arg Arg Asn Thr Ser Glu Lys Lys Ser Ser Arg Lys Val Glu					
	165		170		175
Asn Lys Glu Met Glu Tyr Ile Tyr Glu Asn Tyr Tyr Ile					
	180		185		

<210> 4523

<211> 1022

<212> DNA

<213> Homo sapiens

<400> 4523

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120
cgtgccagcg aggetgtcct ctggggaggca ctacgcaaga tgggactgcg ccctggggtg
180
aggcacccat tcctcggcga tctgagggaag ctatcacag atgactttgt gaagcagaag
240
tacctggaat acaagaagat ccccaacagc aaccacctg agtatgaatt cctctggggc
300
ctgcgagccc gccatgagac cagcaagatg agggctcctga gattcatcgc ccagaatcag
360
aaccgagacc ccgggaatg gaaggctcat ttcttgaggg ctgtggatga tgctttcaag
420
acaatggatg tggatatggc cgagggaacat gccagggccc agatgagggc ccagatgaat
480
atcgggggatg aagcgctgat tggacggtgg agctgggatg acatacaagt cgagctcttg
540
acctgggatg aggaacggaga ttttggcgat gctggggcca ggatccccct tgettcttgg
600
gccagatacc atcagtacat tctgaatagc aaccgtgcca acaggagggc cactgggaga
660
gtctggcgta gcagtggcac caatggaggg gccagcacca gcgtcttaga tggccccagc
720
accagctcca ccattccggac cagaaatgct gccagagctg gcgcagcgtt cttctccttg
780
atccagttag agtttcggca cogttgacga actgcagcga tcttactggc caagccagag
840
cgccctctct cagattcctt ctgcacacag caccctagge ggcttcttcc tgtcagtcgg
900
aggtggcatg caagatgaag ctctcttttg tcttctctgt ttcattttgt gcttttctt
960
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1020
aa
1022

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<210> 4524

<211> 262

<212> PRT

<213> Homo sapiens

<400> 4524

Ala Leu Tyr Ile Leu Val Cys Thr Arg Asp Ser Ser Ala Arg Leu Leu
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 Gly Lys Thr Lys Asp Thr Pro Arg Leu Ser Leu Xaa Leu Val Ile Leu
 20 25 30
 Gly Val Ile Phe Met Asn Gly Asn Arg Ala Ser Glu Ala Val Leu Trp
 35 40 45
 Glu Ala Leu Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Phe
 50 55 60
 Leu Gly Asp Leu Arg Lys Leu Ile Thr Asp Asp Phe Val Lys Gln Lys
 65 70 75 80
 Tyr Leu Glu Tyr Lys Lys Ile Pro Asn Ser Asn Pro Pro Glu Tyr Glu
 85 90 95
 Phe Leu Trp Gly Leu Arg Ala Arg His Glu Thr Ser Lys Met Arg Val
 100 105 110
 Leu Arg Phe Ile Ala Gln Asn Gln Asn Arg Asp Pro Arg Glu Trp Lys
 115 120 125
 Ala His Phe Leu Glu Ala Val Asp Asp Ala Phe Lys Thr Met Asp Val
 130 135 140
 Asp Met Ala Glu Glu His Ala Arg Ala Gln Met Arg Ala Gln Met Asn
 145 150 155 160
 Ile Gly Asp Glu Ala Leu Ile Gly Arg Trp Ser Trp Asp Asp Ile Gln
 165 170 175
 Val Glu Leu Leu Thr Trp Asp Glu Asp Gly Asp Phe Gly Asp Ala Trp
 180 185 190
 Ala Arg Ile Pro Phe Ala Phe Trp Ala Arg Tyr His Gln Tyr Ile Leu
 195 200 205
 Asn Ser Asn Arg Ala Asn Arg Arg Ala Thr Trp Arg Ala Gly Val Ser
 210 215 220
 Ser Gly Thr Asn Gly Gly Ala Ser Thr Ser Val Leu Asp Gly Pro Ser
 225 230 235 240
 Thr Ser Ser Thr Ile Arg Thr Arg Asn Ala Ala Arg Ala Gly Ala Ser
 245 250 255
 Phe Phe Ser Trp Ile Gln
 260

<210> 4525

<211> 1731

<212> DNA

<213> Homo sapiens

<400> 4525

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 120
 gagacagggga gccaaagctag ctacagagcag cctgggcagc taatctctctt cagtggggc
 180
 ctgcagcact tccagactgt ggaectttcc cccttcaaga aaagaatcca gccactatt
 240
 cgaaggactg ggctcgccgc cctccgacac taactcttcg ggcctccaaa gctccaccag
 300

cgcttcggg aagaaagga cttggtctg accattgctc agtgtggcct ggatagccaa
 360
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 420
 gactgtgcgc ttcattgaaa ccactgggag gacctgggct ttcaggggagc gaatccagcc
 480
 acagacctga gaggcgcagg ctctcttgcc ctctgcate tgctctacct agtgatggac
 540
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 660
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 720
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 780
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 cagtgtccca ggtccagaga gcccaagggt gttgctagac tgggtttggc tgcagtctt
 900
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 960
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 1020
 aagcatatata tctgatcaaa aattgggagc caggggtccaa tagttggact attcaagtt
 1080
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 1320
 gccacagcgg ggctgctcaa gaccctggag ctgtacttgg ccagggtgtc aaagggcag
 1380
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 1560
 gccatgtcag gacctggcc aggcgcacc ccttgctgtc tcagcagatg ggatatagga
 1620
 agctcctggg cttagctgtg ggaagccaag taacctcacc ggcattggag atgaggggca
 1680
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<210> 4526

<211> 344

<212> PRT

<213> Homo sapiens


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<400> 4526
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Glu Pro Arg Val Val Ser Thr Glu Val Val Arg Ala Gln Glu Glu Trp
           20           25           30
Glu Ala Val Asp Thr Ile Gln Pro Glu Thr Gly Ser Gln Ala Ser Ser
           35           40           45
Glu Gln Pro Gly Gln Leu Ile Ser Phe Ser Glu Ala Leu Gln His Phe
           50           55           60
Gln Thr Val Asp Leu Ser Pro Phe Lys Lys Arg Ile Gln Pro Thr Ile
           65           70           75           80
Arg Arg Thr Gly Leu Ala Ala Leu Arg His Tyr Leu Phe Gly Pro Pro
           85           90           95
Lys Leu His Gln Arg Leu Arg Glu Glu Arg Asp Leu Val Leu Thr Ile
           100          105          110
Ala Gln Cys Gly Leu Asp Ser Gln Asp Pro Val His Gly Arg Val Leu
           115          120          125
Gln Thr Ile Tyr Lys Lys Leu Thr Gly Ser Lys Phe Asp Cys Ala Leu
           130          135          140
His Gly Asn His Trp Glu Asp Leu Gly Phe Gln Gly Ala Asn Pro Ala
           145          150          155          160
Thr Asp Leu Arg Gly Ala Gly Phe Leu Ala Leu Leu His Leu Leu Tyr
           165          170          175
Leu Val Met Asp Ser Lys Thr Leu Pro Met Ala Gln Glu Ile Phe Arg
           180          185          190
Leu Ser Arg His His Ile Gln Gln Phe Pro Phe Cys Leu Met Ser Val
           195          200          205
Asn Ile Thr His Ile Ala Ile Gln Ala Leu Arg Glu Glu Cys Leu Ser
           210          215          220
Arg Glu Cys Asn Arg Gln Gln Lys Val Ile Pro Val Val Asn Ser Phe
           225          230          235          240
Tyr Ala Ala Thr Phe Leu His Leu Ala His Val Trp Arg Thr Gln Arg
           245          250          255
Lys Thr Ile Ser Asp Ser Gly Phe Val Leu Lys Gly Val Leu Phe Leu
           260          265          270
Leu Gly Arg Pro Arg Leu Asn Ala Gln Cys Pro Arg Ser Arg Glu Pro
           275          280          285
Lys Val Val Ala Arg Leu Val Leu Ala Ala Val Leu Pro His Pro His
           290          295          300
Phe Leu Lys Phe Gln Leu Thr Lys Ile Ser Ile Thr His Pro Leu Glu
           305          310          315          320
Ser Ala Ser Ser Pro Phe Ser Ala Leu Thr Val Ala Leu Phe Trp Ser
           325          330          335
Tyr Thr Tyr Asp Lys His Ile Phe
           340

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<210> 4527

<211> 885

<212> DNA

<213> Homo sapiens

<400> 4527

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nnntttttttt tttttttttt tttttttttt tttttttttt tttttttttt cagagacatg
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 120
 ctgcccaccc agccttggct ctgggctgccc atgtcccccac gggggcaggga gagaggcaca
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 240
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 300
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 360
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 420
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 480
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 540
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 600
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 660
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 720
 tgtgcgtgct gtgtgtgtgg gcgccccggt ggctcccggt cgtcacggcc ggcggcggcg
 780
 acaacgtgac ctggcggggg cagcggcgag cctcttcggc accgcacggc agcgcggcca
 840
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 885

<210> 4528

<211> 206

<212> PRT

<213> Homo sapiens

<400> 4528

Xaa Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe
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 Cys Arg Asp Met Ala Ala Phe Ile Val Pro Ser Pro Ala Arg Arg Cys
 20 25 30
 Ser Gln Lys Gly Ser Leu Gly His Leu Pro Thr Gln Pro Trp Leu Trp
 35 40 45
 Ala Ala Met Ser Pro Arg Gly Gln Glu Arg Gly Thr Ser His Ser Gln
 50 55 60
 Ala Arg Glu Pro Gln Arg Pro Gly Arg Trp Leu Leu Gly Ser Leu Gln
 65 70 75 80
 Ser Ser Pro Gly Thr Leu Gly Gln Ala Gly Thr Ala Ser Arg Arg Arg
 85 90 95
 Gly Cys Met Val Gln Arg Trp Val Gln Val Ala Thr Gly Arg Arg Ala
 100 105 110
 Val Gln Val Pro Lys Gly Ala Leu Gly Leu Ala Leu Gly Glu Thr Ser
 115 120 125
 Pro Gly Ala Ser Arg Gly Met Ser Gly Gly Ala Gly Gly Cys Trp Ala
 130 135 140
 Leu Gly Trp Ala Pro Ser Pro Val Leu Pro Ser Trp Leu Leu Glu Gly

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145              150              155              160
Pro Pro Pro Trp Leu Ser Ile Ile Ser Asp Ser Gly Thr Gln Thr Pro
              165              170              175
Ser Pro Arg Arg Cys Pro Ala Arg Pro Ser Pro Trp Gly Pro Gln Cys
              180              185              190
Trp Arg Gly Gly Arg Ile Ala Ser Ala Glu Ala Ser Ser Thr
              195              200              205

<210> 4529
<211> 546
<212> DNA
<213> Homo sapiens

<400> 4529
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120
aagatggagg agaaacccctc agggcccctc ccgacatgc tggccactgc agagcccagc
180
tccagtgaga ccgacaagga ggtgtgtgtcc ccgctgtgtc cagctgcagc cccctcctcc
240
tccatgtctgc aggagccagg ccctgagcag gcagccacac cgccagtggg gaacctggag
300
gggctgtgagg gatgcagcag ggctcctccc cagccccaga cagctgccag tctggccccg
360
gacccagccc tggcctgacc agcatagtct ccyygaccag cgaggacctg cggcctccca
420
gacgaagccc acctccaggg aagcaaattcc cttgctccag ccttggtgtc tgcctcagtt
480
ttcccagcgt ccgtgacctg gcacagcatc tcggaaccca ctgccgcgcg agccctatgc
540
agtctc
546

<210> 4530
<211> 84
<212> PRT
<213> Homo sapiens

<400> 4530
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Glu Pro Ser Ser Ser Glu Thr Asp Lys Glu Val Leu Ser Pro Ala Val
              20              25              30
Pro Ala Ala Ala Pro Ser Ser Ser Met Ser Glu Glu Pro Gly Pro Glu
              35              40              45
Gln Ala Ala Thr Pro Pro Val Gly Asn Val Glu Gly Leu Glu Gly Cys
              50              55              60
Ser Arg Ala Pro Pro Gln Pro Gln Thr Ala Ala Ser Leu Ala Pro Asp
65              70              75              80
Pro Ala Leu Ala

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<210> 4531
<211> 1414
<212> DNA
<213> Homo sapiens

<400> 4531
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120
gtgagcctgg ccaacttaaa gccgaatccc ggcctcaaga aacgggagag aagaccaaga
180
ggtcggagaa gaggtagaaa atgtggcaga gcccataaag gagaaggca aagaggaacc
240
cgggcccgct tgggctttga gggaggccag actccatttt acatccgaat cccaaaaatac
300
gggtttaacg aaggacatag ttccagacgc cagtataagc ctttgagtct caatagactg
360
cagtatctta ttgatttggg tcgtgttgat cctagtcaac ctatgactt aaccagcgt
420
gtcaatggga gaggtgtgac catccagcca cttaaaaggg attatgggtt ccagctgggt
480
gaggagggtg ctgacacctt tacggcaaaa gttaatatgt aagtacagt ggcttcagaa
540
ctagctattg ctgccattga aaaaaatggt ggtgttgta ctacagcctt ctatgatcca
600
agaagtctgg acattgtatg caaacctggt ccattctttc ttctgggaca acccatcca
660
aaaagaatgc ttccaccaga agaactggta ccatattaca ctgatgcaaa gaaccgtggg
720
tacctggcgg atcctgccaa atttcctgaa gcacgacttg aactcgccag gaagtatggg
780
tatatcttac ctgatatcac taaagatgaa ctcttcaaaa tgctctgtac taggaaggat
840
ccaaggcaga ttttctttgg tcttgctcca ggaagggtgg tgaatatggc cgataagaaa
900
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960
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1020
cattttcctt atgtataatt ttccagatgg tgatgttact ttctagtgta ctcatatgtc
1080
tcattttcat ctaaaattaa atggcaggaa acaaggactg catagagaaa ctgagtctgt
1140
gtgggttctg tctcaaagat acaaactccc tgatagtcta tggaagaaa atgacaacta
1200
ttttagaata ttctagttt gttttttcag tgatcttttc atccaggcct tgttactgtt
1260
acagatcaga atgaaatgca caagtggaa gggattgacc tgtaggcctg ctctgccgag
1320
atgagagcag atggaatgag ttggtgacct ctcttaatct gtagcctcag ggaacacggg
1380
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1414

<210> 4532

<211> 296

<212> PRT

<213> Homo sapiens

<400> 4532

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Met Ala Gly  Pro Leu Gln Gly Gly Gly Ala Arg Ala Leu Asp Leu Leu
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Arg Gly Leu  Pro Arg Val Ser Leu Ala Asn Leu Lys Pro Asn Pro Gly
 20              25              30
Ser Lys Lys  Pro Glu Arg Arg Pro Arg Gly Arg Arg Arg Gly Arg Lys
 35              40              45
Cys Gly Arg Gly His Lys Gly Glu Arg Gln Arg Gly Thr Arg Pro Arg
 50              55              60
Leu Gly Phe Glu Gly Gly Gln Thr Pro Phe Tyr Ile Arg Ile Pro Lys
 65              70              75              80
Tyr Gly Phe Asn Glu Gly His Ser Phe Arg Arg Gln Tyr Lys Pro Leu
 85              90              95
Ser Leu Asn Arg Leu Gln Tyr Leu Ile Asp Leu Gly Arg Val Asp Pro
100              105              110
Ser Gln Pro Ile Asp Leu Thr Gln Leu Val Asn Gly Arg Gly Val Thr
115              120              125
Ile Gln Pro Leu Lys Arg Asp Tyr Gly Val Gln Leu Val Glu Glu Gly
130              135              140
Ala Asp Thr Phe Thr Ala Lys Val Asn Ile Glu Val Gln Leu Ala Ser
145              150              155              160
Glu Leu Ala Ile Ala Ala Ile Glu Lys Asn Gly Gly Val Val Thr Thr
165              170              175
Ala Phe Tyr Asp Pro Arg Ser Leu Asp Ile Val Cys Lys Pro Val Pro
180              185              190
Phe Phe Leu Arg Gly Gln Pro Ile Pro Lys Arg Met Leu Pro Pro Glu
195              200              205
Glu Leu Val Pro Tyr Tyr Thr Asp Ala Lys Asn Arg Gly Tyr Leu Ala
210              215              220
Asp Pro Ala Lys Phe Pro Glu Ala Arg Leu Glu Leu Ala Arg Lys Tyr
225              230              235              240
Gly Tyr Ile Leu Pro Asp Ile Thr Lys Asp Glu Leu Phe Lys Met Leu
245              250              255
Cys Thr Arg Lys Asp Pro Arg Gln Ile Phe Phe Gly Leu Ala Pro Gly
260              265              270
Trp Val Val Asn Met Ala Asp Lys Lys Ile Leu Lys Pro Thr Asp Glu
275              280              285
Asn Leu Leu Lys Tyr Tyr Thr Ser
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<210> 4533

<211> 968

<212> DNA

<213> Homo sapiens

<400> 4533

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 420
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 720
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 840
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<210> 4534

<211> 284

<212> FRT

<213> Homo sapiens

<400> 4534

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His	His	Arg	Leu	Phe	Ala	His	Val	Cys	Pro	Cys	Pro	Asp	Ala	Gly	Ala
			20					25						30	
Glu	Ala	Asp	Arg	Val	Gly	Gln	Arg	Ala	Arg	Arg	Pro	Arg	Ala	Ala	Met
		35					40					45			
Asp	Trp	Leu	Met	Gly	Lys	Ser	Lys	Ala	Lys	Pro	Asn	Gly	Lys	Lys	Pro
	50				55					60					
Ala	Ala	Glu	Glu	Arg	Lys	Ala	Tyr	Leu	Glu	Pro	Glu	His	Thr	Lys	Ala
	65			70					75					80	
Arg	Ile	Thr	Asp	Phe	Gln	Phe	Lys	Glu	Leu	Val	Val	Leu	Pro	Arg	Glu
		85						90					95		
Ile	Asp	Leu	Asn	Glu	Trp	Leu	Ala	Ser	Asn	Thr	Thr	Thr	Phe	Phe	His
		100					105						110		
His	Ile	Asn	Leu	Gln	Tyr	Ser	Thr	Ile	Ser	Glu	Phe	Cys	Thr	Gly	Glu

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      115              120              125
Thr Cys Gln Thr Met Ala Val Cys Asn Thr Gln Tyr Trp Tyr Asp
130              135              140
Glu Arg Gly Lys Lys Val Lys Cys Thr Ala Pro Gln Tyr Val Asp Phe
145              150              155              160
Val Met Ser Ser Val Gln Lys Leu Val Thr Asp Glu Asp Val Phe Pro
165              170              175
Thr Lys Tyr Gly Arg Glu Phe Pro Ser Ser Phe Glu Ser Leu Val Arg
180              185              190
Lys Ile Cys Arg His Leu Phe His Val Leu Ala His Ile Tyr Trp Ala
195              200              205
His Phe Lys Glu Thr Leu Ala Leu Glu Leu His Gly His Leu Asn Thr
210              215              220
Leu Tyr Val His Phe Ile Leu Phe Ala Arg Glu Phe Asn Leu Leu Asp
225              230              235              240
Pro Lys Glu Thr Ala Ile Met Asp Asp Leu Thr Glu Val Leu Cys Ser
245              250              255
Gly Ala Gly Gly Val His Ser Gly Gly Ser Gly Asp Gly Ala Gly Ser
260              265              270
Gly Gly Pro Gly Ala Gln Asn His Val Lys Glu Arg
275              280

<210> 4535
<211> 473
<212> DNA
<213> Homo sapiens

<400> 4535
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240
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300
ggccttggtc gcagattaac gggaatacct cccttggtc tctagtgta cactgtgata
360
ttcggtatga cctcccttgc tctattcctt ggaagaagta caggcactgg tcaagagtgc
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473

<210> 4536
<211> 75
<212> PRT
<213> Homo sapiens

<400> 4536
Arg Leu Phe Phe Phe Phe Phe Glu Met Glu Ser Arg Ser Val Thr
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Gln Ala Gly Val Gln Trp His Asp His Ser Ser Leu Gln Pro Leu Pro

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```

                20                25                30
Pro Arg Phe Lys Gln Phe Ser Xaa Leu Ser Leu Pro Ser Ser Trp Asp
                35                40                45
Tyr Arg Arg Pro Pro Pro Arg Pro Ala Asn Phe Cys Ile Phe Ser Arg
                50                55                60
Asn Gly Val Ser Pro Ser Arg Pro Gly Trp Ser
        65                70                75

<210> 4537
<211> 2811
<212> DNA
<213> Homo sapiens

<400> 4537
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120
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240
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300
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360
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420
ctgcaggggg caccagagat ctgggacagg caaactgcag cccttctgca tggaaccatc
480
atcctggagt gtgtcaacat ggaccttaaa attgaaaagg caacccccaa ggacagcaaa
540
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600
tccctacaaa aggcaaagt tgaatgatca ggactgacca ctgagcagat gctgagaaaa
660
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720
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1140
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1200

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2700
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<210> 4538

<211> 437

<212> PRT

<213> Homo sapiens

<400> 4538

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      20           25           30
Glu Val Phe Val Pro Val Leu Asn Ile Lys Arg Ser Glu Leu Pro Leu
      35           40           45
Arg Gly Asp Ile Val Phe Phe Leu Gln Lys Val His Ile Pro Glu Ser
      50           55           60
Ile Leu Ile Phe Arg Asp Glu Ile Asp Leu His Ala Leu Tyr Gln Ala
      65           70           75           80
Gly Gln Leu Thr Leu Ile Leu Val Asp His His Ile Leu Ser Lys Ser
      85           90           95
Asp Thr Ala Leu Glu Glu Xaa Ser Ser Arg Gly Ala Arg Pro Ser Thr
      100          105          110
His Arg Ala Glu Thr Leu Pro Ser Leu Xaa His Val Ser Val Glu Leu
      115          120          125
Val Gly Ser Cys Ala Thr Leu Val Thr Glu Arg Ile Leu Gln Gly Ala
      130          135          140
Pro Glu Ile Leu Asp Arg Gln Thr Ala Ala Leu Leu His Gly Thr Ile
      145          150          155          160
Ile Leu Asp Cys Val Asn Met Asp Leu Lys Ile Gly Lys Ala Thr Pro
      165          170          175
Lys Asp Ser Lys Tyr Val Glu Lys Leu Glu Ala Leu Phe Pro Asp Leu
      180          185          190
Pro Lys Arg Asn Asp Ile Phe Asp Ser Leu Gln Lys Ala Lys Phe Asp
      195          200          205
Val Ser Gly Leu Thr Thr Glu Gln Met Leu Arg Lys Asp Gln Lys Thr
      210          215          220
Ile Tyr Arg Gln Gly Val Lys Val Ala Ile Ser Ala Ile Tyr Met Asp
      225          230          235          240
Leu Glu Ala Phe Leu Gln Arg Ser Asn Leu Leu Ala Asp Leu His Ala
      245          250          255
Phe Cys Gln Ala His Ser Tyr Asp Val Leu Val Ala Met Thr Ile Phe
      260          265          270
Phe Asn Thr His Asn Glu Pro Val Arg Gln Leu Ala Ile Phe Cys Pro
      275          280          285
His Val Ala Leu Gln Thr Thr Ile Cys Glu Val Leu Glu Arg Ser His
      290          295          300
Ser Pro Pro Leu Lys Leu Thr Pro Ala Ser Ser Thr His Pro Asn Leu
      305          310          315          320
His Ala Tyr Leu Gln Gly Asn Thr Gln Val Ser Arg Lys Lys Leu Leu
      325          330          335
Pro Leu Leu Gln Glu Ala Leu Ser Ala Tyr Phe Asp Ser Met Lys Ile
      340          345          350
Pro Ser Gly Gln Pro Glu Thr Ala Asp Val Ser Arg Glu Gln Val Asp
      355          360          365
Lys Glu Leu Asp Arg Ala Ser Asn Ser Leu Ile Ser Gly Leu Ser Gln

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      370              375              380
Asp Glu Glu Asp Pro Pro Leu Pro Pro Thr Pro Met Asn Ser Leu Val
385              390              395              400
Asp Glu Cys Pro Leu Asp Gln Gly Leu Pro Lys Leu Ser Ala Glu Ala
              405              410              415
Val Phe Glu Lys Cys Ser Gln Ile Ser Leu Ser Gln Ser Thr Thr Ala
              420              425              430
Ser Leu Ser Lys Lys
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<210> 4539

<211> 331

<212> DNA

<213> Homo sapiens

<400> 4539

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120
tcacctggaa actccagcaa gagcagagcc aggtggagga gctgaggatg cagcttcaga
180
agcagaaaaa gaataactgt tcagagaaga agccgctgcc ttctctggct gcctccatca
240
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300
gcagcagctc aaagtgtcac ccaccggctt g
331

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<210> 4540

<211> 99

<212> PRT

<213> Homo sapiens

<400> 4540

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Thr Arg Ser Leu Gly Glu Asn Gln Arg Val Ile Asn Glu Leu Thr Trp
  20              25              30
Lys Leu Gln Gln Glu Gln Arg Gln Val Glu Glu Leu Arg Met Gln Leu
  35              40              45
Gln Lys Gln Lys Arg Asn Asn Cys Ser Glu Lys Lys Pro Leu Pro Phe
  50              55              60
Leu Ala Ala Ser Ile Lys Gln Glu Glu Ala Val Ser Ser Cys Pro Phe
  65              70              75              80
Ala Ser Gln Val Pro Val Lys Arg Gln Ser Ser Ser Ser Lys Cys His
  85              90              95
Pro Pro Ala

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<210> 4541

<211> 452

<212> DNA

<213> Homo sapiens

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 180
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 300
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 360
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 452

<210> 4542
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 4542
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 Ser Leu Trp Ile Cys Val Gln Ile Val Ile Lys Thr Gln Gly Lys Asn
 35 40 45
 Leu Gln Glu Lys Ser Val Pro Lys Ala Ala Gln Asp Leu Met Thr Asn
 50 55 60
 Gly Tyr Val Ser Leu Gln Glu Lys Asp Ile Phe Val Ser Gly Val Lys
 65 70 75 80
 Ile Phe Tyr Gly Ser Gln Thr Gly Thr Ala Lys Gly Phe Ala Thr Val
 85 90 95
 Leu Ala Glu Ala Val Thr Ser Leu Asp Leu Pro Val Ala Ile Ile Asn
 100 105 110
 Leu Lys Glu Tyr Asp Pro Asp Asp His Leu Ile Glu Glu Val Thr Ser
 115 120 125

<210> 4543
 <211> 815
 <212> DNA
 <213> Homo sapiens

<400> 4543
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 120
 gagggccccc gcaccaatgc ttgtcacttt gcttcgcccc acaccctgog ggccagagct
 180

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 240
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 300
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 360
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 815

<210> 4544

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4544

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Gln	Ser	Glu	Pro	Ser	Ala	Leu	Pro	Gly	Leu	Asp	Leu	Phe	Leu	Asn	Ser
		20					25					30			
His	Lys	Leu	Gln	Gly	Ala	Ala	Ala	Val	Ser	Leu	Ala	Arg	His	Trp	Pro
	35					40					45				
Ile	Thr	Ser	Asn	Arg	Leu	Gly	Arg	Ala	Pro	Val	Glu	Ser	Pro	Val	Pro
	50			55						60					
Ser	His	Phe	Arg	Arg	Val	Ala	Leu	Leu	Pro	Arg	Ser	Arg	Ser	Gln	Trp
65				70					75					80	
Pro	Asp	Lys	Gln	Ser	His	Ser	Gly	Val	Val	Arg	Pro	Gly	Arg	Val	Ser
			85					90					95		
Pro	Val	Gly	Gly	Arg	Gly	Ala	Leu	Ala	Arg	Arg	Val	Ser	Gly	Glu	Ala
		100				105							110		
Lys	Cys	Lys	Ala	Leu	Val	Arg	Gly	Ala	Ser	Gly	Ser	His	Gly	Gly	Ala
	115					120						125			
Ala	Gly	Gln	Gly	Pro	Ala	Val	Thr	Arg	Ser	Pro	Ser	Ser	Leu	Cys	Leu
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<210> 4545

<211> 3568

<212> DNA

<213> Homo sapiens

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480
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<211> 380

<212> PRT

<213> Homo sapiens

<400> 4546

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Phe	Arg	Phe	Asn	Pro	Val
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Arg	Asn	Glu	Lys	Leu	Asp
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Glu	Arg	Asn	Glu	Gln	Lys
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Glu	Lys	Thr	Thr	Leu	Gln
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<210> 4547

<211> 2211

<212> DNA

<213> Homo sapiens

<400> 4547

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<210> 4548

<211> 515

<212> PRT

<213> Homo sapiens

<400> 4548

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Glu	Gly	Glu	Glu	Lys	Pro	Glu	Pro	Asp	Ile	Ser	Ser	Glu	Glu	Ser	
			20				25					30			
Val	Ser	Thr	Val	Glu	Glu	Gln	Glu	Asn	Glu	Thr	Pro	Pro	Ala	Thr	Ser


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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gln Ala Leu Met Val Thr His Lys Glu Leu Ala Thr Ile Lys Lys Met
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 Thr Cys Tyr Gly Leu Val Ile Tyr Ala Asp Gly Tyr Met Phe Val Gly
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 Phe Asp Thr Lys Ile Met Lys Asn Cys Gly Lys Ile His Leu Lys Arg
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 Thr Lys Leu Asp Leu Leu Met Asn Lys Leu Val Val Ile Phe Ile
 145 150 155 160
 Ser Val Val Leu Val Cys Leu Val Leu Ala Phe Gly Phe Gly Phe Ser
 165 170 175
 Val Lys Glu Phe Lys Asp His His Tyr Tyr Leu Ser Gly Val His Gly
 180 185 190
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 Ile Tyr Leu Gly Asn Ser Val Phe Ile Asp Trp Asp Val Gln Met Tyr
 225 230 235 240
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 Asp His Leu Gly Gln Val Glu Tyr Ile Phe Ser Asp Lys Thr Gly Thr
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 Ala Leu Pro Gln Cys Gly Pro Ala Ala Pro Arg Ala Asp Gln Arg Gly
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 Arg Gly Arg Ala Gly Val Leu Ala Pro Ala Gly His Leu Pro His Gly
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Thr Val Ile Phe Glu Arg Leu His Arg Arg Gly Ala Met Glu Phe Ala
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          435          440          445
Cys Leu Ala Tyr Arg Glu Val Ala Glu Asp Ile Tyr Glu Asp Trp Gln
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Gln Arg His Gln Glu Ala Ser Leu Leu Leu Gln Asn Arg Ala Gln Ala
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Leu Gln Gln Val Tyr Asn Glu Met Glu Gln Asp Leu Arg Leu Leu Gly
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Ala Thr Ala Ile Glu Asp Arg Leu Gln Asp Gly Val Pro Glu Thr Ile
          500          505          510
Lys Cys Leu Lys Lys Ser Asn Ile Lys Ile Trp Val Leu Thr Gly Asp
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Thr Tyr Trp Glu Asn Ser Asn Asn Leu Leu Thr Arg Glu Ser Leu Ser
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Tyr Ala Arg Arg Leu Ser Leu Leu Cys Arg Arg Phe Gly Leu Pro Leu
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Ile Cys Cys Arg Val Thr Pro Lys Gln Lys Ala Leu Ile Val Ala Leu
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Val Lys Lys Tyr His Gln Val Val Thr Leu Ala Ile Gly Asp Gly Ala
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Asn Asp Ile Asn Met Ile Lys Thr Ala Asp Val Gly Val Gly Leu Ala
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Gly Gln Glu Gly Met Gln Ala Val Gln Asn Ser Asp Phe Val Leu Gly
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Gln Phe Cys Phe Leu Gln Arg Leu Leu Leu Val His Gly Arg Trp Ser
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Ala Ile Ala His Gly Val Thr Thr Ser Leu Val Asn Phe Phe Met Thr
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Gln Ser Phe Ala Val Val Val Ala Leu Ser Cys Leu Leu Ser Ile Thr
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Met Glu Val Ile Leu Ile Ile Lys Tyr Trp Thr Ala Leu Cys Val Ala
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Thr Ile Leu Leu Ser Leu Gly Phe Tyr Ala Ile Met Thr Thr Thr Thr
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<210> 4551

<211> 361

<212> DNA

<213> Homo sapiens

<400> 4551

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<210> 4552

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4552

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Cys Ser Gln Gln Gly Arg Gln Gly Arg Ala Pro Arg Arg Asp Pro Thr
50      55      60
Gln Arg Thr Trp Glu Ser Gly Cys Gln Arg Trp Ala Ala Gly Arg Ala

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<210> 4553

<211> 2970

<212> DNA

<213> Homo sapiens

<400> 4553

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 <212> PRT
 <213> Homo sapiens

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 Pro Glu Lys Cys Leu Ser Glu Leu Ser Asn Leu Gln Glu Leu Tyr Ile
 130 135 140
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 Asn Ser Lys Trp Phe Asp Ala Leu Pro Asn Leu Glu Ile Leu Met Ile
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 245 250 255
 Val Asn Leu Lys Phe Leu Asp Leu Asn Lys Asn Pro Ile Asn Arg Ile
 260 265 270
 Arg Arg Gly Asp Phe Ser Asn Met Leu His Leu Lys Glu Leu Gly Ile
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 Leu Pro Asp Leu Arg Lys Ile Glu Ala Thr Asn Asn Pro Arg Leu Ser
 305 310 315 320
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 325 330 335
 Met Leu Asn Ser Asn Ala Leu Ser Ala Leu Tyr His Gly Thr Ile Glu

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          385          390          395
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          405          410          415
Leu Pro Leu Ile Ala Pro Glu Ser Phe Pro Ser Asn Leu Asn Val Glu
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          485          490          495
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Pro Thr Ile Tyr Gln Lys Asn Arg Lys Lys Cys Val Asn Val Thr Thr
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Lys Gly Leu His Pro Asp Gln Lys Glu Tyr Glu Lys Asn Asn Thr Thr
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Thr Leu Met Ala Cys Leu Gly Gly Leu Leu Gly Ile Ile Gly Val Ile
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Ser Tyr Val Arg Asn Tyr Leu Gln Lys Pro Thr Phe Ala Leu Gly Glu
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Leu Tyr Pro Pro Leu Ile Asn Leu Trp Glu Ala Gly Lys Glu Lys Ser
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<211> 1128

<212> DNA

<213> Homo sapiens

<400> 4555

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<211> 67

<212> PRT

<213> Homo sapiens

<400> 4556

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Gly	Leu	Lys	Leu	Ala	Leu	Cys	Gly	Thr	Val	Leu	Asp	His	Leu	Val	Gly
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<211> 446

<212> DNA

<213> Homo sapiens

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<211> 148

<212> PRT

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 Glu Thr Ser Arg Ala Phe Leu Pro Pro Pro Ser Asp Val Arg Val Arg
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 Ser Cys Leu Tyr His Trp Ser Ala Thr Ala His Leu Pro Pro Leu Ser
 65 70 75 80
 Lys Lys Pro Pro Cys Thr Ile Ser His Leu Arg Pro Leu Leu Gly Leu
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 Pro Pro Pro Ser Asp Leu His Ile Pro Ser Ala Ala Thr Leu Gly Pro
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<212> DNA

<213> Homo sapiens

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<211> 126

<212> PRT

<213> Homo sapiens

<400> 4560

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 Pro Val Ser Cys Met Glu Ala Thr Pro Asn Pro Met Glu Ser Leu Arg

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 <211> 4172
 <212> DNA
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<211> 1182

<212> PRT

<213> Homo sapiens

<400> 4562

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 Asp Leu Ser Asp Pro Ser Leu Asp Met Lys Ser Cys Ala Thr Phe Ser
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 Ser Ser His Arg Tyr His Lys Leu Ile Trp Gly Pro Tyr Lys Met Asp
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 Ser Lys Gly Asp Val Ser Gly Val Leu Ile Ala Gly Gly Glu Asn Gly
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 Asn Ile Ile Leu Tyr Asp Pro Ser Lys Ile Ile Ala Gly Asp Lys Glu
 100 105 110
 Val Val Ile Ala Gln Asn Asp Lys His Thr Gly Pro Val Arg Ala Leu
 115 120 125
 Asp Val Asn Ile Phe Gln Thr Asn Leu Val Ala Ser Gly Ala Asn Glu
 130 135 140
 Ser Glu Ile Tyr Ile Trp Asp Leu Asn Asn Phe Ala Thr Pro Met Thr
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 Pro Gly Ala Lys Thr Gln Pro Pro Glu Asp Ile Ser Cys Ile Ala Trp
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 Asn Arg Gln Val Gln His Ile Leu Ala Ser Ala Ser Pro Ser Gly Arg
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 Ala Thr Val Trp Asp Leu Arg Glu Asn Glu Pro Ile Ile Lys Val Ser
 195 200 205
 Asp His Ser Asn Arg Met His Cys Ser Gly Leu Ala Trp His Pro Asp
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 Val Ala Thr Gln Met Val Leu Ala Ser Glu Asp Asp Arg Leu Pro Val
 225 230 235 240
 Ile Gln Met Trp Asp Leu Arg Phe Ala Ser Ser Pro Leu Arg Val Leu
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 Glu Asn His Ala Arg Gly Ile Leu Ala Ile Ala Trp Ser Met Ala Asp
 260 265 270
 Pro Glu Leu Leu Leu Ser Cys Gly Lys Asp Ala Lys Ile Leu Cys Ser
 275 280 285
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 Trp Cys Phe Asp Ile Gln Trp Cys Pro Arg Asn Pro Ala Val Leu Ser
 305 310 315 320
 Ala Ala Ser Phe Asp Gly Arg Ile Ser Val Tyr Ser Ile Met Gly Gly
 325 330 335
 Ser Thr Asp Gly Leu Arg Gln Lys Gln Val Asp Lys Leu Ser Ser Ser
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 Lys Pro Pro Lys Trp Ile Arg Arg Pro Val Gly Ala Ser Phe Ser Phe
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 Gly Ala Glu Gln Gln Gln Gln His Val Phe Ile Ser Gln Val
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 Val Thr Glu Lys Glu Phe Leu Ser Arg Ser Asp Gln Leu Gln Gln Ala
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      485              490              495
Lys  Glu  Asp  Leu  Glu  Lys  Xaa  Gln  Asp  Ile  Lys  Glu  Glu  Lys  Glu  Glu
      500              505              510
Ser  Glu  Phe  Leu  Pro  Ser  Ser  Gly  Gly  Thr  Phe  Asn  Ile  Ser  Val  Ser
      515              520              525
Gly  Asp  Ile  Asp  Gly  Leu  Ile  Thr  Gln  Ala  Leu  Leu  Thr  Gly  Asn  Phe
      530              535              540
Glu  Ser  Ala  Val  Asp  Leu  Cys  Leu  His  Asp  Asn  Arg  Met  Ala  Asp  Ala
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Ile  Ile  Leu  Ala  Ile  Ala  Gly  Gly  Gln  Glu  Leu  Leu  Ala  Arg  Thr  Gln
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Lys  Lys  Tyr  Phe  Ala  Lys  Ser  Gln  Ser  Lys  Ile  Thr  Arg  Leu  Ile  Thr
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Lys  Asn  Trp  Arg  Glu  Ala  Leu  Ala  Ala  Val  Leu  Thr  Tyr  Ala  Lys  Pro
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Asp  Glu  Phe  Ser  Ala  Leu  Cys  Asp  Leu  Leu  Gly  Thr  Arg  Leu  Glu  Asn
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Glu  Gly  Asp  Ser  Leu  Leu  Gln  Thr  Gln  Ala  Cys  Leu  Cys  Tyr  Ile  Cys
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Ala  Gly  Asn  Val  Glu  Lys  Leu  Val  Ala  Cys  Trp  Thr  Lys  Ala  Gln  Asp
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Gly  Ser  His  Pro  Leu  Ser  Leu  Gln  Asp  Leu  Ile  Glu  Lys  Val  Val  Ile
      675              680              685
Leu  Arg  Lys  Ala  Val  Gln  Leu  Thr  Gln  Ala  Met  Asp  Thr  Ser  Thr  Val
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Gly  Val  Leu  Leu  Ala  Ala  Lys  Met  Ser  Gln  Tyr  Ala  Asn  Leu  Leu  Ala
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      740              745              750
Gly  Glu  Pro  Val  Ala  Gly  His  Glu  Ser  Pro  Lys  Ile  Pro  Tyr  Glu  Lys
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Gln  Gln  Leu  Pro  Lys  Gly  Arg  Pro  Gly  Pro  Val  Ala  Gly  His  His  Gln
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Pro  Pro  Pro  Gly  Phe  Ile  Met  His  Gly  Asn  Val  Asn  Pro  Asn  Ala  Ala
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      850              855              860
Thr  Ser  Asn  Ala  Tyr  Pro  Asn  Thr  Pro  Tyr  Ile  Ser  Ser  Ala  Ser  Ser
865
Tyr  Thr  Gly  Gln  Ser  Gln  Leu  Tyr  Ala  Ala  Gln  His  Gln  Ala  Ser  Ser

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Pro Thr Ser Ser Pro Ala Thr Ser Phe Pro Pro Pro Pro Ser Ser Gly
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Tyr Ala Leu Pro Pro Gly Thr Thr Gly Thr Leu Pro Ala Ala Ser Glu
      930              935              940
Leu Pro Ala Ser Gln Arg Thr Gly Pro Gln Asn Gly Trp Asn Asp Pro
      945              950              955
Pro Ala Leu Asn Arg Val Pro Lys Lys Lys Met Pro Glu Asn Phe
      965              970              975
Met Pro Pro Val Pro Ile Thr Ser Pro Ile Met Asn Pro Leu Gly Asp
      980              985              990
Pro Gln Ser Gln Met Leu Gln Gln Gln Pro Ser Ala Pro Val Pro Leu
      995              1000              1005
Ser Ser Gln Ser Ser Phe Pro Gln Pro His Leu Pro Gly Gly Gln Pro
      1010              1015              1020
Phe His Gly Val Gln Gln Pro Leu Gly Gln Thr Gly Met Pro Pro Ser
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Phe Ser Lys Pro Asn Ile Glu Gly Ala Pro Gly Ala Pro Ile Gly Asn
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Thr Phe Gln His Val Gln Ser Leu Pro Thr Lys Lys Ile Thr Lys Lys
      1060              1065              1070
Pro Ile Pro Asp Glu His Leu Ile Leu Lys Thr Thr Phe Glu Asp Leu
      1075              1080              1085
Ile Gln Arg Cys Leu Ser Ser Ala Thr Asp Pro Gln Thr Lys Arg Lys
      1090              1095              1100
Leu Asp Asp Ala Ser Lys Arg Leu Glu Phe Leu Tyr Asp Lys Leu Arg
      1105              1110              1115
Glu Gln Thr Leu Ser Pro Thr Ile Thr Ser Gly Leu His Asn Ile Ala
      1125              1130              1135
Arg Ser Ile Glu Thr Arg Asn Tyr Ser Glu Gly Leu Thr Met His Thr
      1140              1145              1150
His Ile Val Ser Thr Ser Asn Phe Ser Glu Thr Ser Ala Phe Met Pro
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<210> 4563

<211> 2037

<212> DNA

<213> Homo sapiens

<400> 4563

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300

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 2037

<210> 4564

<211> 354

<212> PRT

<213> Homo sapiens

<400> 4564

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 Asp Glu Asp Gly Leu Val Val Leu Val Phe Asn Lys Lys Glu Thr Glu
 35 40 45
 Ile Arg Ser Gln Gln Gln Gln Leu Val Glu Ser Leu His Lys Val Leu
 50 55 60
 Gly Gly Asn Gln Thr Leu Thr Val Asn Val Glu Gly Thr Lys Thr Leu
 65 70 75 80
 Pro Asp Asp Gln Thr Glu Val Val Ile Tyr Val Val Glu Arg Ser Pro
 85 90 95
 Asn Gly Thr Ser Arg Arg Val Pro Ala Thr Thr Leu Tyr Ala His Phe
 100 105 110
 Glu Gln Ala Asn Ile Lys Thr Gln Leu Gln Gln Leu Gly Val Thr Leu
 115 120 125
 Ser Met Thr Arg Thr Glu Leu Ser Pro Ala Gln Ile Arg Gln Leu Leu
 130 135 140
 Gln Asn Pro Pro Ala Gly Val Asp Pro Ile Ile Trp Glu Gln Ala Lys
 145 150 155 160
 Val Asp Asn Pro Asp Ser Glu Lys Leu Ile Pro Val Pro Met Val Gly
 165 170 175
 Phe Lys Glu Leu Leu Arg Arg Leu Lys Val Gln Asp Gln Met Thr Lys
 180 185 190
 Gln His Gln Thr Arg Leu Asp Ile Ile Ser Glu Asp Ile Ser Glu Leu
 195 200 205
 Gln Lys Asn Gln Thr Thr Ser Val Ala Lys Ile Ala Gln Tyr Lys Arg
 210 215 220
 Lys Leu Met Asp Leu Ser His Arg Thr Leu Gln Val Leu Ile Lys Gln
 225 230 235 240
 Glu Ile Gln Arg Lys Ser Gly Tyr Ala Ile Gln Ala Asp Glu Glu Gln
 245 250 255
 Leu Arg Val Gln Leu Asp Thr Ile Gln Gly Glu Leu Asn Ala Pro Thr
 260 265 270
 Gln Phe Lys Gly Arg Leu Asn Glu Leu Met Ser Gln Ile Arg Met Gln
 275 280 285
 Asn His Phe Gly Ala Val Arg Ser Glu Glu Arg Tyr Tyr Ile Asp Ala
 290 295 300
 Asp Leu Leu Arg Glu Ile Lys Gln His Leu Lys Gln Gln Gln Glu Gly
 305 310 315 320
 Leu Ser His Leu Ile Ser Ile Ile Lys Asp Asp Leu Glu Asp Ile Lys
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<211> 2344			
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<213> Homo sapiens			
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<210> 4566

<211> 247

<212> PRT

<213> Homo sapiens

<400> 4566

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 35 40 45
 Gln Ser Pro Pro Ile Val Glu Leu Arg Glu Lys Ile Gln Pro Glu Ile
 50 55 60
 Leu Glu Leu Ile Lys Gln Gln Arg Leu Asn Arg Leu Cys Glu Gly Ser
 65 70 75 80
 Ser Phe Arg Lys Ile Gly Asn Arg Arg Arg Gln Glu Arg Phe Trp Tyr

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Cys	Arg	Leu	Ala	Leu	Asn	His	Lys	Val	Leu	His	Tyr	Gly	Asp	Leu	Asp
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Asp	Asn	Pro	Gln	Gly	Glu	Val	Thr	Phe	Glu	Ser	Leu	Gln	Glu	Lys	Ile
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Pro	Val	Ala	Asp	Ile	Lys	Ala	Ile	Val	Thr	Gly	Lys	Asp	Cys	Pro	His
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Met	Lys	Glu	Lys	Ser	Ala	Leu	Lys	Gln	Asn	Lys	Glu	Val	Leu	Glu	Leu
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Ala	Phe	Ser	Ile	Leu	Tyr	Asp	Pro	Asp	Glu	Thr	Leu	Asn	Phe	Ile	Ala
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Pro	Asn	Lys	Tyr	Glu	Tyr	Cys	Ile	Trp	Ile	Asp	Gly	Leu	Ser	Ala	Leu
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Leu	Gly	Lys	Asp	Met	Ser	Ser	Glu	Leu	Thr	Lys	Ser	Asp	Leu	Asp	Thr
	195						200					205			
Leu	Leu	Ser	Met	Glu	Met	Lys	Leu	Arg	Leu	Leu	Asp	Leu	Glu	Asn	Ile
	210				215						220				
Gln	Ile	Pro	Glu	Ala	Pro	Pro	Pro	Ile	Pro	Lys	Glu	Pro	Ser	Ser	Tyr
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Asp	Phe	Val	Tyr	His	Tyr	Gly									
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<210> 4567

<211> 1211

<212> DNA

<213> Homo sapiens

<400> 4567

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<210> 4568
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 4568
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 35 40 45
 Val Gln Gln Arg Glu Leu Ala Val Thr Ser Pro Lys Asp Gly Ser Ile
 50 55 60
 Ser Ile Leu Gly Ser Asp Asp Ala Thr Thr Cys His Ile Val Val Leu
 65 70 75 80
 Arg His Thr Gly Asn Gly Ala Thr Cys Leu Thr His Cys Asp Gly Thr
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<210> 4569
 <211> 1797
 <212> DNA
 <213> Homo sapiens

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<210> 4570

<211> 141

<212> PRT

<213> Homo sapiens

<400> 4570

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  20             25             30
Gln Thr Trp His Ile Arg Phe Gly Asp Asn Gly Leu Gly Thr Leu Met
  35             40             45
Leu Leu Gly Pro Gly Glu Thr Val Leu Arg Gln Lys Leu Gly Val Gln
  50             55             60
Gly Gly Pro Arg Val Arg His Cys Gly Glu Gly Asn Ala Gly Glu Ser
  65             70             75             80
Gly Pro Thr Leu Gln Leu Gly Thr Arg Gly Arg Lys Gln Arg Gly Gln
  85             90             95
Ala Ser Val Pro Leu Pro Gln Glu Gln Thr Ser Gly Pro Gln Glu Gly
 100             105             110
Leu Gln Ala Ala Arg Ser Leu Pro Ser Ala Gly Gly Ser Arg Gly Arg
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<210> 4571

<211> 1084

<212> DNA

<213> Homo sapiens

<400> 4571

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720

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<210> 4572

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4572

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 20 25 30
 Ser Ser Arg Lys Ser Lys Ala Glu Leu Gln Ser Glu Glu Arg Lys Arg
 35 40 45
 Ile Asp Glu Leu Ile Glu Ser Gly Lys Glu Glu Gly Met Lys Ile Asp
 50 55 60
 Leu Ile Asp Gly Lys Gly Arg Gly Val Ile Ala Thr Lys Gln Phe Ser
 65 70 75 80
 Arg Gly Asp Phe Val Val Glu Tyr His Gly Asp Leu Ile Glu Ile Thr
 85 90 95
 Asp Ala Lys Lys Arg Glu Ala Leu Tyr Ala Gln Asp Pro Ser Thr Gly
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<210> 4573

<211> 309

<212> DNA

<213> Homo sapiens

<400> 4573

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<212> PRT
<213> Homo sapiens

<400> 4574
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35 40 45
Ala Gly Ala Val Gly Thr Pro Gly Lys Arg Gly Pro Ser Gly Pro Gln
50 55 60
Gly Leu Leu Gly Pro Pro Gly Pro Pro Ala Pro Val Gly Pro Pro His
65 70 75 80
Ala Arg Ile Ser Gln His Gly Asp Pro Leu Leu Ser Asn Thr Phe Thr
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Glu Thr Asn Pro Phe Thr Arg
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<210> 4575
<211> 1068
<212> DNA
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<400> 4575
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720

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<210> 4576

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4576

Lys Trp Asp Pro Gly Ile Val Asp Leu Asp Asp Thr Val His Gln Leu
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 20 25 30
 Pro Ala Arg His Val Ala Thr Ala Gln Gly Glu Val Leu Pro Pro Gly
 35 40 45
 Gly Leu Gly Gly Ala Ala Gln Arg Ala Arg Gly Gln Ser His Gly Gly
 50 55 60
 Thr Val Pro Gly Asn Ala Pro Ala Ala Asp Leu Leu Ala Leu Ser Pro
 65 70 75 80
 Arg Leu Glu Arg Ser Gly Thr Ile Ser Thr His Cys Lys Leu Arg Leu
 85 90 95
 Pro Gly Ser Arg His Ser Pro Ala Ser Ala Ser
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<210> 4577

<211> 3525

<212> DNA

<213> Homo sapiens

<400> 4577

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<210> 4578

<211> 1007

<212> PRT

<213> Homo sapiens

<400> 4578

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Leu Ala Ser Gly Asp Arg Ser Gly Asn Leu Arg Gln Val Gly Pro Gly
35      40      45
Ser Val Gln Cys Thr Pro Pro Ser Ser Ser Gly Ser Gln Gly Ser
50      55      60
Gly Gln Lys Pro Trp Pro Trp His Leu Leu Leu Pro Ile Gly Asn Glu
65      70      75      80
Gly Leu Ile His Glu Leu His Phe Met Asp Glu Leu Val Lys Val Glu
85      90      95
Ala His Asp Ala Glu Val Leu Cys Leu Glu Tyr Ser Lys Pro Glu Thr
100     105     110
Gly Leu Thr Leu Leu Ala Ser Ala Ser Arg Asp Arg Leu Ile His Val
115     120     125
Leu Asn Val Glu Lys Asn Tyr Asn Leu Glu Gln Thr Leu Asp Asp His
130     135     140
Ser Ser Ser Ile Thr Ala Ile Lys Phe Ala Gly Asn Arg Asp Ile Gln
145     150     155     160
Met Ile Ser Cys Gly Ala Asp Lys Ser Ile Tyr Phe Arg Ser Ala Gln
165     170     175
Gln Gly Ser Asp Gly Leu His Phe Val Arg Thr His His Val Ala Glu
180     185     190
Lys Thr Thr Leu Tyr Asp Met Asp Ile Asp Ile Thr Gln Lys Tyr Val
195     200     205
Ala Val Ala Cys Gln Asp Arg Asn Val Arg Val Tyr Asn Thr Val Asn
210     215     220
Gly Lys Gln Lys Lys Cys Tyr Lys Gly Ser Gln Gly Asp Glu Gly Ser
225     230     235     240
Leu Leu Lys Val His Val Asp Pro Ser Gly Thr Phe Leu Ala Thr Ser
245     250     255
Cys Ser Asp Lys Ser Ile Ser Val Ile Asp Phe Tyr Ser Gly Glu Cys
260     265     270
Ile Ala Lys Met Phe Gly His Ser Gly Gly Cys Ala Ser Leu Leu Gly
275     280     285
Met Pro Pro His Pro Pro Thr Pro Ser Asp Ser Glu Gly Lys Cys Ser
290     295     300
Leu Ser Ala Leu Phe Ala Glu Ile Ile Thr Ser Met Lys Phe Thr Tyr
305     310     315     320
Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe Ile
325     330     335
Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu Leu
340     345     350
Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys Arg
355     360     365
Ser Gly His Pro Arg Ser Trp Gln Pro Leu Pro Val His Gln Arg Asp
370     375     380
Glu Ser Leu Pro Gly Pro His Gly Val Met Leu Gly Thr Gln Ser Ser
385     390     395     400
Leu Pro Ala Asn Gln Arg Gln Ala Ala Thr Val Gly Lys Ala Ala Gly

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405                      410                      415
Asp Asp Asp Val Ala Asp Gly Leu Ala Phe His Ala Lys Arg Ser Tyr
420                      425                      430
Gln Pro His Gly Arg Trp Ala Glu Arg Ala Gly Gln Glu Pro Leu Lys
435                      440                      445
Thr Ile Leu Asp Ala Gln Asp Leu Asp Cys Tyr Phe Thr Pro Met Lys
450                      455                      460
Pro Glu Ser Leu Glu Asn Ser Ile Leu Asp Ser Leu Glu Pro Gln Ser
465                      470                      475                      480
Leu Ala Ser Leu Leu Ser Glu Gln Lys Glu Ser Ser Glu Ala Ser Glu
485                      490                      495
Leu Ile Leu Tyr Ser Leu Glu Ala Glu Val Thr Val Thr Gly Thr Asp
500                      505                      510
Ser Gln Tyr Cys Arg Lys Glu Val Glu Ala Gly Pro Gly Asp Gln Gln
515                      520                      525
Gly Asp Ser Tyr Leu Arg Val Ser Ser Asp Ser Pro Lys Asp Gln Ser
530                      535                      540
Pro Pro Glu Gly Pro Thr Glu Asp Glu Leu Ser Leu Pro Glu Gly Pro
545                      550                      555                      560
Ser Val Pro Ser Ser Ser Leu Pro Gln Thr Pro Glu Gln Glu Lys Phe
565                      570                      575
Leu Arg His His Phe Glu Thr Leu Thr Glu Ser Pro Cys Arg Ala Leu
580                      585                      590
Gly Asp Val Glu Ala Ser Glu Ala Glu Asp His Phe Phe Asn Pro Arg
595                      600                      605
Leu Ser Ile Ser Thr Gln Phe Leu Ser Ser Leu Gln Lys Ala Ser Arg
610                      615                      620
Phe Thr His Thr Phe Pro Pro Arg Ala Thr Gln Cys Leu Val Lys Ser
625                      630                      635                      640
Pro Glu Val Lys Leu Met Asp Arg Gly Glu Ser Gln Pro Arg Ala Gly
645                      650                      655
Thr Gly Tyr Ala Ser Pro Asp Arg Thr His Ser Val Pro Ser Ala Ser
660                      665                      670
Val Thr Ala Pro Cys Leu Thr Ser Leu Ala Ser Cys Val Pro Ala Ser
675                      680                      685
Ser Val Leu Pro Thr Asp Arg Asn Leu Pro Thr Pro Thr Ser Ala Pro
690                      695                      700
Thr Pro Gly Leu Ala Gln Gly Val His Ala Pro Ser Thr Cys Ser Tyr
705                      710                      715                      720
Met Glu Ala Thr Ala Ser Ser Arg Ala Arg Ile Ser Arg Ser Ile Ser
725                      730                      735
Leu Gly Asp Ser Glu Gly Pro Ile Val Ala Thr Leu Ala Gln Pro Leu
740                      745                      750
Arg Arg Pro Ser Ser Val Gly Glu Leu Ala Ser Leu Gly Gln Glu Leu
755                      760                      765
Gln Ala Ile Thr Thr Ala Thr Thr Pro Ser Leu Asp Ser Glu Gly Gln
770                      775                      780
Glu Pro Ala Leu Arg Ser Trp Gly Asn His Glu Ala Arg Ala Asn Leu
785                      790                      795                      800
Arg Leu Thr Leu Ser Ser Ala Cys Asp Gly Leu Leu Gln Pro Pro Val
805                      810                      815
Asp Thr Gln Pro Gly Val Thr Val Pro Ala Val Ser Phe Pro Ala Pro
820                      825                      830
Ser Pro Val Glu Glu Ser Ala Leu Arg Leu His Gly Ser Ala Phe Arg

```

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  850              855              860
Asn Pro Gln Leu Pro Glu Ala Arg Pro Gly Ile Pro Gly Gly Thr Ala
  865              870              875              880
Ser Leu Leu Glu Pro Thr Ser Gly Trp Gly Thr Ser Cys Thr Gly Cys
      885              890              895
Arg Pro Pro Ser Lys Lys Pro Ser Thr Phe Thr Val Cys Trp Ser Pro
      900              905              910
Val Ala Arg Trp Thr Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser
      915              920              925
Pro Pro Ser Cys Gly Ser Thr Ala Ser Trp Arg Leu Asn Ala Trp Trp
      930              935              940
Gly Leu Val Trp Pro Gln Pro Arg Leu Cys Pro Ala Gln Asp Pro Arg
  945              950              955              960
Pro His Arg Arg Cys Thr Pro Trp Pro Ala Gln Thr Cys Arg Pro Cys
      965              970              975
Trp Asn Thr Thr Arg Ser Cys Trp Cys Arg Pro Cys Gly Gly Arg His
      980              985              990
Gly Gly Thr Glu Gly Ala Ala Pro Pro Pro Gln Pro Cys Cys Phe
      995              1000              1005

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<210> 4579

<211> 321

<212> DNA

<213> Homo sapiens

<400> 4579

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  120
accaactgca tgaagcagca cttgctggag attgaccacc ggcagcagca gcagcacaca
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<210> 4580

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4580

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Xaa Lys Met Phe Gly His Ser Glu Ile Ile Thr Ser Met Lys Phe Thr
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Tyr Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe
      20              25              30
Ile Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu
      35              40              45
Leu Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys

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      50              55              60
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<210> 4581
<211> 1396
<212> DNA
<213> Homo sapiens

<400> 4581
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<210> 4582

<211> 354

<212> PRT

<213> Homo sapiens

<400> 4582

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		20					25					30			
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Leu	Ala	Lys	Lys	Glu	Ala	Lys	Glu	Arg	Lys	Lys	Arg	Glu	Lys	Met	Gly
	50				55						60				
Trp	Gly	Glu	Glu	Tyr	Met	Gly	Tyr	Thr	Asn	Thr	Asp	Asn	Pro	Phe	Gly
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Lys	Gly	Ile	Ser	His	Leu	Glu	Glu	Lys	Glu	Leu	Lys	Glu	Arg	Asn	Lys
		100						105					110		
Arg	Ile	Gln	Glu	Asp	Asn	Arg	Leu	Glu	Leu	Gln	Lys	Val	Lys	Gln	Leu
		115					120					125			
Arg	Leu	Glu	Arg	Glu	Arg	Glu	Lys	Ala	Met	Arg	Glu	Gln	Glu	Leu	Glu
	130					135					140				
Met	Leu	Gln	Arg	Val	Lys	Gly	Thr	Glu	His	Phe	Lys	Thr	Trp	Glu	Glu
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Gln	Glu	Asp	Asn	Phe	His	Leu	Gln	Gln	Ala	Lys	Leu	Arg	Ser	Lys	Ile
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Ile	Ser	Ala	Glu	Asp	Asp	Asp	Leu	Ala	Gly	Glu	Met	His	Glu	Pro	Tyr
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Thr	Phe	Leu	Asn	Gly	Leu	Thr	Val	Ala	Asp	Met	Glu	Asp	Leu	Leu	Glu
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225					230					235					240
Trp	Arg	Asp	Met	Thr	Thr	Ile	Thr	Glu	Asp	Gly	Ile	Ser	Lys	Leu	Arg
			245					250						255	
Lys	Leu	Glu	Ala	Ser	Gly	Lys	Gly	Pro	Gly	Glu	Arg	Arg	Glu	Gly	Val
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Asn	Ala	Ser	Val	Ser	Ser	Asp	Val	Gln	Ser	Val	Phe	Lys	Gly	Lys	Thr
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Tyr	Asn	Gln	Leu	Gln	Val	Ile	Phe	Gln	Gly	Ile	Glu	Gly	Lys	Ile	Arg
	290					295					300				
Ala	Gly	Gly	Pro	Asn	Leu	Asp	Met	Gly	Tyr	Trp	Glu	Ser	Leu	Leu	Gln

305		310		315		320
Gln	Leu	Arg	Ala	His	Met	Ala
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<210> 4583

<211> 3350

<212> DNA

<213> Homo sapiens

<400> 4583

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<210> 4584

<211> 923

<212> PRT

<213> Homo sapiens

<400> 4584

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			20					25					30		
Trp	Leu	Gly	Glu	Leu	Gln	Arg	Ser	Val	His	Ala	Trp	Glu	Ile	Ser	Asp
		35					40					45			
Gln	Leu	Leu	Gln	Ile	Arg	Gln	Asp	Val	Glu	Ser	Cys	Tyr	Phe	Ala	Ala
			50			55					60				
Gln	Thr	Met	Lys	Met	Lys	Ile	Gln	Thr	Ser	Phe	Tyr	Glu	Leu	Pro	Thr
					70					75				80	
Asp	Ser	His	Ala	Ser	Leu	Arg	Asp	Ser	Leu	Thr	His	Ile	Gln	Asn	
			85					90					95		
Leu	Lys	Asp	Leu	Ser	Pro	Val	Ile	Val	Thr	Gln	Leu	Ala	Leu	Ala	Ile
			100					105					110		
Ala	Asp	Leu	Ala	Leu	Gln	Met	Pro	Ser	Trp	Lys	Gly	Cys	Val	Gln	Thr
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		130				135					140				
Glu	Ile	Leu	Thr	Val	Leu	Pro	Glu	Glu	Val	His	Ser	Arg	Ser	Leu	Arg
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Ile	Gly	Ala	Asn	Arg	Arg	Thr	Glu	Ile	Ile	Glu	Asp	Leu	Ala	Phe	Tyr
			165					170						175	
Ser	Ser	Thr	Val	Val	Ser	Leu	Leu	Met	Thr	Cys	Val	Glu	Lys	Ala	Gly
			180					185					190		
Thr	Asp	Glu	Lys	Met	Leu	Met	Lys	Val	Phe	Arg	Cys	Leu	Gly	Ser	Trp
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Phe	Asn	Leu	Gly	Val	Leu	Asp	Ser	Asn	Phe	Met	Ala	Asn	Asn	Lys	Leu
			210			215					220				
Leu	Ala	Leu	Leu	Phe	Glu	Val	Leu	Gln	Gln	Asp	Lys	Thr	Ser	Ser	Asn

[illegible]

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Val Asn Val Tyr His Val His Gln His Ser Cys Phe Leu Tyr Leu Gly
        690                695                700
Ser Ile Leu Val Asp Glu Tyr Gly Met Glu Glu Gly Cys Arg Gln Gly
        705                710                715
Leu Leu Asp Met Leu Gln Ala Leu Cys Ile Pro Thr Phe Gln Leu Leu
        725                730                735
Glu Gln Gln Asn Gly Leu Gln Asn His Pro Asp Thr Val Asp Asp Leu
        740                745                750
Phe Arg Leu Ala Thr Arg Phe Ile Gln Arg Ser Pro Val Thr Leu Leu
        755                760                765
Arg Ser Gln Val Val Ile Pro Ile Leu Gln Trp Ala Ile Ala Ser Thr
        770                775                780
Thr Leu Asp His Arg Asp Ala Asn Cys Ser Val Met Arg Phe Leu Arg
        785                790                795
Asp Leu Ile His Thr Gly Val Ala Asn Asp His Glu Glu Asp Phe Glu
        805                810                815
Leu Arg Lys Glu Leu Ile Gly Gln Val Met Asn Gln Leu Gly Gln Gln
        820                825                830
Leu Val Ser Gln Leu Leu His Thr Cys Cys Phe Cys Leu Pro Pro Tyr
        835                840                845
Thr Leu Pro Asp Val Ala Glu Val Leu Trp Glu Ile Met Gln Val Asp
        850                855                860
Arg Pro Thr Phe Cys Arg Trp Leu Glu Asn Ser Leu Lys Gly Leu Pro
        865                870                875
Lys Glu Thr Thr Val Gly Ala Val Thr Val Thr His Lys Gln Leu Thr
        885                890                895
Asp Phe His Lys Gln Val Thr Ser Ala Glu Glu Cys Lys Gln Val Cys
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Trp Ala Leu Arg Asp Phe Thr Arg Leu Phe Arg
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<210> 4585

<211> 1952

<212> DNA

<213> Homo sapiens

<400> 4585

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420

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<210> 4586

<211> 530

<212> PRT

<213> Homo sapiens

<400> 4586

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 35          40          45
Ile Leu Asp Leu Ser Glu Ser Gly Leu Cys Arg Leu Glu Glu Val Phe
 50          55          60
Arg Ile Pro Ser Leu Gln Gln Leu His Leu Gln Arg Asn Ala Leu Cys
 65          70          75          80
Val Ile Pro Gln Asp Phe Phe Gln Leu Leu Pro Asn Leu Thr Trp Leu
 85          90          95
Asp Leu Arg Tyr Asn Arg Ile Lys Ala Leu Pro Ser Gly Ile Gly Ala
 100          105          110
His Gln His Leu Lys Thr Leu Leu Leu Glu Arg Asn Pro Ile Lys Met
 115          120          125
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 130          135          140
Arg His Cys Pro Leu Glu Phe Pro Pro Gln Leu Val Val Gln Lys Gly
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 180          185          190
Thr Leu Arg Asp Leu Pro Ser Pro Gly Leu Glu Leu Ser Gly Asp His
 195          200          205
Ala Ser Asn Gln Gly Ala Val Asn Ala Gln Asp Pro Glu Gly Ala Val
 210          215          220
Met Lys Glu Lys Ala Ser Phe Leu Pro Pro Val Glu Lys Pro Asp Leu
 225          230          235          240
Ser Glu Leu Arg Lys Ser Ala Asp Ser Ser Glu Asn Trp Pro Ser Glu
 245          250          255
Glu Glu Ile Arg Arg Phe Trp Lys Leu Arg Gln Glu Ile Val Glu His
 260          265          270
Val Lys Ala Asp Val Leu Gly Asp Gln Leu Leu Thr Arg Glu Leu Pro
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Pro Asn Leu Lys Ala Ala Leu Asn Ile Glu Lys Glu Leu Pro Lys Pro
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Arg His Val Phe Arg Arg Lys Thr Ala Ser Ser Arg Ser Ile Leu Pro
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Asp Leu Leu Ser Pro Tyr Gln Met Ala Ile Arg Ala Lys Arg Leu Glu
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Glu Ser Arg Ala Ala Ala Leu Arg Glu Leu Gln Glu Lys Gln Ala Leu
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Met Glu Gln Gln Arg Arg Glu Lys Arg Ala Leu Gln Glu Trp Arg Glu
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Arg Ala Gln Arg Met Arg Lys Arg Lys Glu Glu Leu Ser Lys Leu Leu
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Lys Ala Ala Glu Asp Leu Glu Ile Ala Thr Glu Leu Gln Asp Glu Val
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Ala Leu Thr Gly Asn Leu Ser Leu Gly Leu Pro Ala Ala Gln Pro Gln
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Tyr Gln
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<210> 4587

<211> 1723

<212> DNA

<213> Homo sapiens

<400> 4587

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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 4589

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<210> 4593

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<211> 1145

<212> PRT

<213> Homo sapiens

<400> 4594

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Arg His Leu Ser Asn Thr His Thr Asn His Glu Asp Lys Leu Gln Val
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<210> 4595

<211> 935

<212> DNA

<213> Homo sapiens

<400> 4595

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935

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<210> 4596

<211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4596
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 1 5 10 15
 Arg Lys Gln Arg Ala Val Ser Gln Leu Ser Arg Gly Leu Thr Asp Ile
 20 25 30
 Phe Leu Gly Thr Ser Ile Ser Ser Ser Trp Ala Pro Leu Arg
 35 40 45
 Gly Arg Glu Ala Ala Leu Pro Gly Pro Ala Gly Asp Xaa Ala Val Lys
 50 55 60
 Gly Pro Ala Asp Pro Ala Ala Gln His Ser Arg Asp Gly Gln Gly Gly
 65 70 75 80
 Trp Pro Pro Ala Gln Gly Thr Ala Ser Thr Ala Gly Lys Ser Gly Ala
 85 90 95
 Pro Gly Ala Trp Ser Val Gly Gly Ala Thr Gly Pro Arg Gly Ala Lys
 100 105 110
 Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser Pro Gly Ser Pro Pro Arg
 115 120 125
 Glu Ser Arg Cys Leu Ala Pro Gly Pro Ser Arg Leu Asp Pro Gly Pro
 130 135 140
 Ala Xaa Ala Ala Ala Pro Gly Ala Leu Arg Pro Pro Ala Asp Pro Ser
 145 150 155 160
 Gln Ala Arg Pro Arg Gly Ser Asn
 165

<210> 4597
 <211> 515
 <212> DNA
 <213> Homo sapiens

<400> 4597
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 120
 gggacactca tgctcagtga ctgatgggat ggggggtaca aagtccagc cagctgatcc
 180
 ttgggagcca ttccagctca caactcctgg gccttgggga gtcggccgtg ggacctgcct
 240
 cacagctcag ctctcctctc cggcccccatt ctgcctcctc cgggcccttt ccaggcagt
 300
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 360
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 420
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<210> 4598

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4598

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Met Ser Ser Trp Gly His Ser Cys Ser Val Thr Asp Gly Met Gly Gly
 1             5             10             15
Thr Lys Ser Gln Pro Arg Asp Ser Gly Arg Pro Phe Gln Leu Thr Thr
      20             25             30
Pro Gly Pro Trp Gly Val Gly Arg Gly Thr Cys Leu Thr Ala Gln Leu
      35             40             45
Leu Leu Ser Ala Pro Phe Cys Leu Leu Pro Ala Leu Ser Gln Ala Val
      50             55             60
Ser Pro Arg Asn Ser Leu Arg Asn Ile Leu Thr Leu Asn Ser Thr Ala
65             70             75             80
Glu Pro Ser Ser Trp Glu Ser Arg Glu Arg Pro Leu Gln Ser Arg Asn
      85             90             95
Val Tyr Ser Ser Ala Ser Phe Ser Glu His Leu Asp Gly Gly Cys Ser
      100            105            110
Pro Leu Val Leu Gln Ser Leu Ala Arg Arg Ile Ser Ser Thr Trp Leu
      115            120            125
Val Asp Gln Ser Leu Arg Glu
      130            135

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<210> 4599

<211> 2314

<212> DNA

<213> Homo sapiens

<400> 4599

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ccacctctcc ccagccccgg agaggctgcg gagccgcagc cgcccagacc ggcgagcgcg
120
ggaggcaggt tccgcacgaa ataaatcaga atgagttatg cagaaaaacc cgatgaaatc
180
acgaaagatg agtggatgga aaagctcaat aacttgcatt tccagagagc agacatgaac
240
cgctctatca tgaactacct ggtcacagag ggctttaagg aagcagcgga gaagtttcga
300
atggaatctg gaatcgaaac tagtgtggat ctggaaacac ttgatgaacg aatcaagatc
360
cgggagatga tactgaaagg tcagattcag gaggccatcg ccttgatcaa cagcctccac
420
ccagagctct tggacacaaa ccggtatctt tacttccatt tgcagaaca gcatttgatc
480
gagctgatcc gccagcgga gacagaggcg gcgctggagt ttgcacagac tcagctggcg
540
gagcaggcg aggagagccg agagtgcctc acagagatgg agcgtacctc ggcactgctg
600
gccttttgca gtcccgagga gtgcctcttc ggagacctcc tccacacctc gcagaggcag
660
aagggtgtga gtgaagttaa ccaagctgtg ctagattatg aaaatcgga gtcaacaccc
720

```

aaactggcaa aattactgaa actactactt tgggctcaga acgagctgga ccagaagaaa
780
gtaaaaatc ccaaaatgac agacctcagc aagggtgtga ttgaggagcc caagtagcg
840
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900
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1980
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2100
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2220
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<210> 4600

<211> 228

<212> PRT

<213> Homo sapiens

<400> 4600

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Glu Lys Leu Asn Asn Leu His Val Gln Arg Ala Asp Met Asn Arg Leu
      20             25             30
Ile Met Asn Tyr Leu Val Thr Glu Gly Phe Lys Glu Ala Ala Glu Lys
      35             40             45
Phe Arg Met Glu Ser Gly Ile Glu Pro Ser Val Asp Leu Glu Thr Leu
      50             55             60
Asp Glu Arg Ile Lys Ile Arg Glu Met Ile Leu Lys Gly Gln Ile Gln
      65             70             75             80
Glu Ala Ile Ala Leu Ile Asn Ser Leu His Pro Glu Leu Leu Asp Thr
      85             90             95
Asn Arg Tyr Leu Tyr Phe His Leu Gln Gln His Leu Ile Glu Leu
      100            105            110
Ile Arg Gln Arg Glu Thr Glu Ala Ala Leu Glu Phe Ala Gln Thr Gln
      115            120            125
Leu Ala Glu Gln Gly Glu Glu Ser Arg Glu Cys Leu Thr Glu Met Glu
      130            135            140
Arg Thr Leu Ala Leu Leu Ala Phe Asp Ser Pro Glu Glu Ser Pro Phe
      145            150            155            160
Gly Asp Leu Leu His Thr Met Gln Arg Gln Lys Val Trp Ser Glu Val
      165            170            175
Asn Gln Ala Val Leu Asp Tyr Glu Asn Arg Glu Ser Thr Pro Lys Leu
      180            185            190
Ala Lys Leu Leu Lys Leu Leu Leu Trp Ala Gln Asn Glu Leu Asp Gln
      195            200            205
Lys Lys Val Lys Tyr Pro Lys Met Thr Asp Leu Ser Lys Gly Val Ile
      210            215            220
Glu Glu Pro Lys
225

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<210> 4601

<211> 916

<212> DNA

<213> Homo sapiens

<400> 4601

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gaaacccaaa ttgtagctga cgaagcattt tgcaacgcag ttcggagtta ttatgaggtt
  120
tttctaaaga gtgaccgagt gccagaatg gtacagagtg gaggggtgttc tgctaatagac
  180
ttcagagaag tattaagaa aaacatagaa aaacgtgtgc ggagtttgcg agaaatagat
  240
ggcttgagca aagagacagt gttgagctca tggatagcca aatatgatgc catttacaga
  300

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ggatgaagagg acttgtgcaa acagccaaat agaatggccc taagtgcagt gtctgaactt
 360
 attctgagca aggaacaact ctatgaaatg ttctcagcaga ttctgggtat taaaaaacta
 420
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 480
 atcagaaggg aacttgatgg ccggctgcaa ttggcagata aaatggcaaa ggaagaaaaa
 540
 ttccccaat ttatagcaaa agatattggag aatatgtata tagaagattt gcggtcttca
 600
 gtgaatttgc taatggccaa ttggaaaagt cttccagttt cgaaaagggtg tccggaattt
 660
 aaattacaaa aattaaaaacg ttcacagaac tctgcatttt tggacatagg agatgagaat
 720
 gagattcagc tgtcaaaagtc cgacgtggta ctgtcattca ccttagagat tgtcataatg
 780
 gaagtgcagg gcctgaagtc agttgctccc aatcgaattg tttactgtac aatggaagtg
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<210> 4602

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4602

Lys Leu Asn Lys Gln Gln Leu Gln Leu Leu Lys Glu Arg Phe Gln Ala
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 Phe Leu Asn Gly Glu Thr Gln Ile Val Ala Asp Glu Ala Phe Cys Asn
 20 25 30
 Ala Val Arg Ser Tyr Tyr Glu Val Phe Leu Lys Ser Asp Arg Val Ala
 35 40 45
 Arg Met Val Gln Ser Gly Gly Cys Ser Ala Asn Asp Phe Arg Glu Val
 50 55 60
 Phe Lys Lys Asn Ile Glu Lys Arg Val Arg Ser Leu Pro Glu Ile Asp
 65 70 75 80
 Gly Leu Ser Lys Glu Thr Val Leu Ser Ser Trp Ile Ala Lys Tyr Asp
 85 90 95
 Ala Ile Tyr Arg Gly Glu Glu Asp Leu Cys Lys Gln Pro Asn Arg Met
 100 105 110
 Ala Leu Ser Ala Val Ser Glu Leu Ile Leu Ser Lys Glu Gln Leu Tyr
 115 120 125
 Glu Met Phe Gln Gln Ile Leu Gly Ile Lys Lys Leu Glu His Gln Leu
 130 135 140
 Leu Tyr Asn Ala Cys Gln Leu Asp Asn Ala Asp Glu Gln Ala Ala Gln
 145 150 155 160
 Ile Arg Arg Glu Leu Asp Gly Arg Leu Gln Leu Ala Asp Lys Met Ala
 165 170 175
 Lys Glu Arg Lys Phe Pro Lys Phe Ile Ala Lys Asp Met Glu Asn Met
 180 185 190
 Tyr Ile Glu Glu Leu Arg Ser Ser Val Asn Leu Leu Met Ala Asn Leu

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      195              200              205
Glu Ser Leu Pro Val Ser Lys Gly Pro Glu Phe Lys Leu Gln Lys
 210              215              220
Leu Lys Arg Ser Gln Asn Ser Ala Phe Leu Asp Ile Gly Asp Glu Asn
 225              230              235              240
Glu Ile Gln Leu Ser Lys Ser Asp Val Val Leu Ser Phe Thr Leu Glu
      245              250              255
Ile Val Ile Met Glu Val Gln Gly Leu Lys Ser Val Ala Pro Asn Arg
      260              265              270
Ile Val Tyr Cys Thr Met Glu Val Glu Gly Glu Lys Leu Gln Thr Asp
      275              280              285
Gln Ala Glu Ala Ser Arg Pro Gln Trp Gly Asp Ser Gly Glu Phe His
      290              295              300
Pro
305

```

<210> 4603

<211> 2090

<212> DNA

<213> Homo sapiens

<400> 4603

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120
cagagcctgg ccagcctgct gagtgaagca gagagtcctc aggaagctgg ccgcgggcac
180
ccctccttcc tgccccagca gaaggaatca tctgaggcca gtgagctcat cctctactct
240
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300
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360
gaccagagcc cgcttgagga ctccggggag tcagaggccg acctggagtg cagcttcgca
420
gccatccact cccagctccc gctcctgac cctgcccctc ggtttgccac gtcgctgccc
480
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720
gcattccagg tcaccatac ctccctctcc cgggcaaccc agtgcttgtt gaagtctcca
780
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840
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900
ccaccacctc cctgccttac gaggcctggc tcctgtgtcc ctgcttctcc cgtgctgccc
960

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 1080
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 2090

<210> 4604

<211> 666

<212> PRT

<213> Homo sapiens

<400> 4604

Ala	Glu	Arg	Ala	Gly	Gln	Glu	Pro	Leu	Lys	Thr	Ile	Leu	Asp	Ala	Gln
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Asp	Leu	Asp	Cys	Tyr	Phe	Thr	Pro	Met	Lys	Pro	Glu	Ser	Leu	Glu	Asn
			20					25					30		
Ser	Ile	Leu	Asp	Ser	Leu	Glu	Pro	Gln	Ser	Leu	Ala	Ser	Leu	Leu	Ser
			35				40					45			
Glu	Ser	Glu	Ser	Pro	Gln	Glu	Ala	Gly	Arg	Gly	His	Pro	Ser	Phe	Leu
			50			55					60				
Pro	Gln	Gln	Lys	Glu	Ser	Ser	Glu	Ala	Ser	Glu	Leu	Ile	Leu	Tyr	Ser


```

65          70          75          80
Leu Glu Ala Glu Val Thr Val Thr Gly Thr Asp Ser Gln Tyr Cys Arg
      85          90          95
Lys Glu Val Glu Ala Gly Pro Gly Asp Gln Gln Gly Asp Ser Tyr Leu
      100          105          110
Arg Val Ser Ser Asp Ser Pro Lys Asp Gln Ser Pro Pro Glu Asp Ser
      115          120          125
Gly Glu Ser Glu Ala Asp Leu Glu Cys Ser Phe Ala Ala Ile His Ser
      130          135          140
Pro Ala Pro Pro Pro Asp Pro Ala Pro Arg Phe Ala Thr Ser Leu Pro
      145          150          155
His Phe Pro Gly Cys Ala Gly Pro Thr Glu Asp Glu Leu Ser Leu Pro
      165          170          175
Glu Gly Pro Ser Val Pro Ser Ser Ser Leu Pro Gln Thr Pro Glu Gln
      180          185          190
Glu Lys Phe Leu Arg His His Phe Glu Thr Leu Thr Glu Ser Pro Cys
      195          200          205
Arg Ala Leu Gly Asp Val Glu Ala Ser Glu Ala Glu Asp His Phe Phe
      210          215          220
Asn Pro Arg Leu Ser Ile Ser Thr Gln Phe Leu Ser Ser Leu Gln Lys
      225          230          235
Ala Ser Arg Phe Thr His Thr Phe Pro Pro Arg Ala Thr Gln Cys Leu
      245          250          255
Val Lys Ser Pro Glu Val Lys Leu Met Asp Arg Gly Gly Ser Gln Pro
      260          265          270
Arg Ala Gly Thr Gly Tyr Ala Ser Pro Asp Arg Thr His Val Leu Ala
      275          280          285
Ala Gly Lys Ala Glu Glu Thr Leu Glu Ala Trp Arg Pro Pro Pro Pro
      290          295          300
Cys Leu Thr Ser Leu Ala Ser Cys Val Pro Ala Ser Ser Val Leu Pro
      305          310          315
Thr Asp Arg Asn Leu Pro Thr Pro Thr Ser Ala Pro Thr Pro Gly Leu
      325          330          335
Ala Gln Gly Val His Ala Pro Ser Thr Cys Ser Tyr Met Glu Ala Thr
      340          345          350
Ala Ser Ser Arg Ala Arg Ile Ser Arg Ser Ile Ser Leu Gly Asp Ser
      355          360          365
Glu Gly Pro Ile Val Ala Thr Leu Ala Gln Pro Leu Arg Arg Pro Ser
      370          375          380
Ser Val Gly Glu Leu Ala Ser Leu Gly Gln Glu Leu Gln Ala Ile Thr
      385          390          395
Thr Ala Thr Thr Pro Ser Leu Asp Ser Glu Gly Gln Glu Pro Ala Leu
      405          410          415
Arg Ser Trp Gly Asn His Glu Ala Arg Ala Asn Leu Arg Leu Thr Leu
      420          425          430
Ser Ser Ala Cys Asp Gly Leu Leu Leu Pro Pro Val Asp Thr Gln Pro
      435          440          445
Gly Val Thr Val Pro Ala Val Ser Phe Pro Ala Pro Ser Pro Val Glu
      450          455          460
Glu Ser Ala Leu Arg Leu His Gly Ser Ala Phe Arg Pro Ser Leu Pro
      465          470          475
Ala Pro Glu Ser Pro Gly Leu Pro Ala His Pro Ser Asn Pro Gln Leu
      485          490          495
Pro Glu Ala Arg Pro Gly Ile Pro Gly Gly Thr Ala Ser Leu Leu Glu

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          500                      505                      510
Pro Thr Ser Gly Ala Leu Gly Leu Phe Gln Gly Ser Pro Ala Arg Trp
          515                      520                      525
Ser Glu Pro Trp Val Pro Val Glu Ala Leu Pro Pro Ser Pro Leu Glu
          530                      535                      540
Leu Ser Gly Trp Gly Thr Ser Cys Thr Gly Cys Arg Pro Pro Ser Lys
          545                      550                      555                      560
Lys Pro Ser Thr Phe Thr Val Cys Trp Ser Pro Val Ala Arg Trp Thr
          565                      570                      575
Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser Pro Pro Ser Cys Gly
          580                      585                      590
Ser Thr Ala Ser Trp Arg Leu Asn Ala Trp Trp Gly Leu Val Trp Pro
          595                      600                      605
Gln Pro Arg Leu Cys Pro Ala Gln Asp Pro Arg Pro His Arg Arg Cys
          610                      615                      620
Thr Pro Trp Pro Ala Gln Thr Cys Arg Pro Cys Trp Asn Thr Thr Arg
          625                      630                      635                      640
Ser Cys Trp Cys Arg Pro Cys Gly Gly Arg His Gly Gly Thr Glu Gly
          645                      650                      655
Ala Ala Pro Pro Gln Pro Cys Cys Phe
          660                      665

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<210> 4605

<211> 2998

<212> DNA

<213> Homo sapiens

<400> 4605

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720
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780

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1920
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1980
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2100
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2220
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2280
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2340
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2400

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 2520
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 2580
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 2880
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 2998

<210> 4606

<211> 584

<212> PRT

<213> Homo sapiens

<400> 4606

Ile Glu His Lys Glu Asn Asp His Lys Val Phe Tyr Gly Gly Asp
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 Leu Lys Val Asp Cys Val Ala Thr Gly Leu Pro Asn Pro Glu Ile Ser
 20 25 30
 Trp Ser Leu Pro Asp Gly Ser Leu Val Asn Ser Phe Met Gln Ser Asp
 35 40 45
 Asp Ser Gly Gly Arg Thr Lys Arg Tyr Val Val Phe Asn Asn Gly Thr
 50 55 60
 Leu Tyr Phe Asn Glu Val Gly Met Arg Glu Gly Gly Asp Tyr Thr Cys
 65 70 75 80
 Phe Ala Glu Asn Gln Val Gly Lys Asp Glu Met Arg Val Arg Val Lys
 85 90 95
 Val Val Thr Ala Pro Ala Thr Ile Arg Asn Lys Thr Cys Leu Ala Val
 100 105 110
 Gln Val Pro Tyr Gly Asp Val Val Thr Val Ala Cys Glu Ala Lys Gly
 115 120 125
 Glu Pro Met Pro Lys Val Thr Trp Leu Ser Pro Thr Asn Lys Val Ile
 130 135 140
 Pro Thr Ser Ser Glu Lys Tyr Gln Ile Tyr Gln Asp Gly Thr Leu Leu
 145 150 155 160
 Ile Gln Lys Ala Gln Arg Ser Asp Ser Gly Asn Tyr Thr Cys Leu Val
 165 170 175
 Arg Asn Ser Ala Gly Glu Asp Arg Lys Thr Val Trp Ile His Val Asn
 180 185 190
 Val Gln Pro Pro Lys Ile Asn Gly Asn Pro Asn Pro Ile Thr Thr Val
 195 200 205
 Arg Glu Ile Ala Ala Gly Gly Ser Arg Lys Leu Ile Asp Cys Lys Ala

210 215 220
 Glu Gly Ile Pro Thr Pro Arg Val Leu Trp Ala Phe Pro Glu Gly Val
 225 230 240
 Val Leu Pro Ala Pro Tyr Tyr Gly Asn Arg Ile Thr Val His Gly Asn
 245 250 255
 Gly Ser Leu Asp Ile Arg Ser Leu Arg Lys Ser Asp Ser Val Gln Leu
 260 265 270
 Val Cys Met Ala Arg Asn Glu Gly Gly Glu Ala Arg Leu Ile Leu Gln
 275 280 285
 Leu Thr Val Leu Glu Pro Met Glu Lys Pro Ile Phe His Asp Pro Ile
 290 295 300
 Ser Glu Lys Ile Thr Ala Met Ala Gly His Thr Ile Ser Leu Asn Cys
 305 310 315 320
 Ser Ala Ala Gly Thr Pro Thr Pro Ser Leu Val Trp Val Leu Pro Asn
 325 330 335
 Gly Thr Asp Leu Gln Ser Gly Gln Gln Leu Gln Arg Phe Tyr His Lys
 340 345 350
 Ala Asp Gly Met Leu His Ile Ser Gly Leu Ser Ser Val Asp Ala Gly
 355 360 365
 Ala Tyr Arg Cys Val Ala Arg Asn Ala Ala Gly His Thr Glu Arg Leu
 370 375 380
 Val Ser Leu Lys Val Gly Leu Lys Pro Glu Ala Asn Lys Gln Tyr His
 385 390 395 400
 Asn Leu Val Ser Ile Ile Asn Gly Glu Thr Leu Lys Leu Pro Cys Thr
 405 410 415
 Pro Pro Gly Ala Gly Gln Gly Arg Phe Ser Trp Thr Leu Pro Asn Gly
 420 425 430
 Met His Leu Glu Gly Pro Gln Thr Leu Gly Arg Val Ser Leu Leu Asp
 435 440 445
 Asn Gly Thr Leu Thr Val Arg Glu Ala Ser Val Phe Asp Arg Gly Thr
 450 455 460
 Tyr Val Cys Arg Met Glu Thr Glu Tyr Gly Pro Ser Val Thr Ser Ile
 465 470 475 480
 Pro Val Ile Val Ile Ala Tyr Pro Pro Arg Ile Thr Ser Glu Pro Thr
 485 490 495
 Pro Val Ile Tyr Thr Arg Pro Gly Asn Thr Val Lys Leu Asn Cys Met
 500 505 510
 Ala Met Gly Ile Pro Lys Ala Asp Ile Thr Trp Glu Leu Pro Asp Lys
 515 520 525
 Ser His Leu Lys Ala Gly Val Gln Ala Arg Leu Tyr Gly Asn Arg Phe
 530 535 540
 Leu His Pro Gln Gly Ser Leu Thr Ile Gln His Ala Thr Gln Arg Asp
 545 550 555 560
 Ala Gly Phe Tyr Lys Cys Met Ala Lys Asn Ile Leu Gly Ser Asp Ser
 565 570 575
 Lys Thr Thr Tyr Ile His Val Phe
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<210> 4607

<211> 456

<212> DNA

<213> Homo sapiens

<400> 4607

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 120
 ttatgcactt cctaggtagt tagaaacaaa cctgtggcaa ggcaggctcc tggcaaacgg
 180
 aagtgaactt gtgggcaaga gatgcggacc acccagctgg gccctggggc ctccaaatg
 240
 acccaggagg tggctctgca gcaatgccct aatgtcaaac tagtgaatga agaacgaacg
 300
 ctggaagtag aaatagagcc tgggggtgaga gacggcatgg agtaccctt tattggagaa
 360
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 420
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 456

<210> 4608

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4608

Val	Val	Arg	Asn	Lys	Pro	Val	Ala	Arg	Gln	Ala	Pro	Gly	Lys	Arg	Lys
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Cys	Asn	Cys	Arg	Gln	Glu	Met	Arg	Thr	Gln	Leu	Gly	Pro	Gly	Arg	
			20				25				30				
Phe	Gln	Met	Thr	Gln	Glu	Val	Val	Cys	Asp	Glu	Cys	Pro	Asn	Val	Lys
		35					40				45				
Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu	Glu	Val	Glu	Ile	Glu	Pro	Gly	Val
	50				55					60					
Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe	Ile	Gly	Glu	Gly	Glu	Pro	His	Val
	65				70				75					80	
Asp	Gly	Xaa	Pro	Gly	Asp	Leu	Arg	Phe	Arg	Ile	Lys	Val	Val	Lys	His
			85				90							95	
Pro	Ile	Phe	Glu	Arg	Arg	Gly	Asp	Asp	Leu	Tyr					
			100				105								

<210> 4609

<211> 904

<212> DNA

<213> Homo sapiens

<400> 4609

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 120
 cggcggttggt tgttggttac gtcaggcgcc accaaggtcc cactggaagc gcgccgggtg
 180
 cgctctctcg acaacttcag cagcggcgcg ccgggtgcaa cctcggcgca ggcccttccta
 240
 gccgcccggc acggggctcct gttcttgat cgcgctcgct ctgccttccc ctatgccca
 300

cgcttccac cccagacttg gctgtccgct ctgcggcctt cgggcccagc cctttcgggc
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 420
 taccaggagg ctgcggctgc aggcaccttc ctggcagtag agttcaccac tttggcggac
 480
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 540
 ttttactctg ctgcggctgt gtcagatttc tatgttcctg tctctgaaat gcctgaacac
 600
 aagatccagt catctggggg cccactgcag ggaaaagtgc agttagaaga catacttcac
 660
 catcttgaaa aagaagaaat caatcccctt gctactacag aagaacaact ctgtttgggtg
 720
 cttattccag ccagcacagt gaagacaggc tgaggactgc taccacagat gtagaagagc
 780
 ttatagttaa gcacatgggt gaaacaaaag aagtgagaac taatagcata gaattttaaa
 840
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 900
 aaaa
 904

<210> 4610

<211> 250

<212> PRT

<213> Homo sapiens

<400> 4610

Xaa Ala Ala Ala Leu Gln Met Ala Glu Met Asp Pro Val Ala Glu Phe
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 Pro Gln Pro Pro Gly Ala Ala Arg Trp Ala Glu Val Met Ala Arg Phe
 20 25 30
 Ala Ala Arg Leu Gly Ala Gln Gly Arg Arg Val Val Leu Val Thr Ser
 35 40 45
 Gly Gly Thr Lys Val Pro Leu Glu Ala Arg Pro Val Arg Phe Leu Asp
 50 55 60
 Asn Phe Ser Ser Gly Arg Arg Gly Ala Thr Ser Ala Glu Ala Phe Leu
 65 70 75 80
 Ala Ala Gly Tyr Gly Val Leu Phe Leu Tyr Arg Ala Arg Ser Ala Phe
 85 90 95
 Pro Tyr Ala His Arg Phe Pro Pro Gln Thr Trp Leu Ser Ala Leu Arg
 100 105 110
 Pro Ser Gly Pro Ala Leu Ser Gly Leu Leu Ser Leu Glu Ala Glu Glu
 115 120 125
 Asn Ala Leu Pro Gly Phe Ala Glu Ala Leu Arg Ser Tyr Gln Glu Ala
 130 135 140
 Ala Ala Ala Gly Thr Phe Leu Ala Val Glu Phe Thr Thr Leu Ala Asp
 145 150 155 160
 Tyr Leu His Leu Leu Gln Ala Ala Ala Gln Ala Leu Asn Pro Leu Gly
 165 170 175
 Pro Ser Ala Met Phe Tyr Leu Ala Ala Ala Val Ser Asp Phe Tyr Val
 180 185 190
 Pro Val Ser Glu Met Pro Glu His Lys Ile Gln Ser Ser Gly Gly Pro

atgaagacca aagaactgat tggaagcatg aaaattaatg gaaggggtgc agcatccaca
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 ttctcttcag atagtaagaa agtatacgcc tcttcggggg atggagaagt ttatgtttgg
 1320
 gatgtgaact caaggaagtg .ccttaacaga tttgttgatg aaggcagttt atatggatta
 1380
 agcattgccca catctaggaa tggacagtat gttgcttggt gttctaatg tggagtggta
 1440
 aatatatata atcaagatto ttgtctccaa gaaacaaacc caaagccaat aaaagctata
 1500
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 1560
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 1620
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 1680
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 1740
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 1800
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 1860
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 1920
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 1946

<210> 4612

<211> 532

<212> PRT

<213> Homo sapiens

<400> 4612

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Lys	Pro	Ala	Pro	Ser	Ser	Gln	Arg	Lys	Pro	Pro	Ala	Arg	Pro	Ser	Ala
			20					25					30		
Ala	Ala	Ala	Ala	Ile	Ala	Val	Ala	Ala	Ala	Glu	Glu	Glu	Arg	Arg	Leu
			35				40					45			
Arg	Gln	Arg	Asn	Arg	Leu	Arg	Leu	Glu	Glu	Asp	Lys	Pro	Ala	Val	Glu
			50			55				60					
Arg	Cys	Leu	Glu	Glu	Leu	Val	Phe	Gly	Asp	Val	Glu	Asn	Asp	Glu	Asp
65					70					75				80	
Ala	Leu	Leu	Arg	Arg	Leu	Arg	Gly	Pro	Arg	Val	Gln	Glu	His	Glu	Asp
			85						90					95	
Ser	Gly	Asp	Ser	Glu	Val	Glu	Asn	Glu	Ala	Lys	Gly	Asn	Phe	Pro	Pro
			100				105						110		
Gln	Lys	Lys	Pro	Val	Trp	Val	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Glu	Met
			115				120					125			
Val	Asp	Met	Met	Asn	Asn	Arg	Phe	Arg	Lys	Asp	Met	Met	Lys	Asn	Ala
			130			135					140				
Ser	Glu	Ser	Lys	Leu	Ser	Lys	Asp	Asn	Leu	Lys	Lys	Arg	Leu	Lys	Glu
145					150					155					160
Glu	Phe	Gln	His	Ala	Met	Gly	Gly	Val	Pro	Ala	Trp	Ala	Glu	Thr	Thr

165 170 175
 Lys Arg Lys Thr Ser Ser Asp Asp Glu Ser Glu Glu Asp Glu Asp Asp
 180 185 190
 Leu Leu Gln Arg Thr Gly Asn Phe Ile Ser Thr Ser Thr Ser Leu Pro
 195 200 205
 Arg Gly Ile Leu Lys Met Lys Asn Cys Gln His Ala Asn Ala Glu Arg
 210 215 220
 Pro Thr Val Ala Arg Ile Ser Ser Val Gln Phe His Pro Gly Ala Gln
 225 230 235 240
 Ile Val Met Val Ala Gly Leu Asp Asn Ala Val Ser Leu Phe Gln Val
 245 250 255
 Asp Gly Lys Thr Asn Pro Lys Ile Gln Ser Ile Tyr Leu Glu Arg Phe
 260 265 270
 Pro Ile Phe Lys Ala Cys Phe Ser Ala Asn Gly Glu Glu Val Leu Ala
 275 280 285
 Thr Ser Thr His Ser Lys Val Leu Tyr Val Tyr Asp Met Leu Ala Gly
 290 295 300
 Lys Leu Ile Pro Val His Gln Val Arg Gly Leu Lys Glu Lys Ile Val
 305 310 315 320
 Arg Ser Phe Glu Val Ser Pro Asp Gly Ser Phe Leu Leu Ile Asn Gly
 325 330 335
 Ile Ala Gly Tyr Leu His Leu Leu Ala Met Lys Thr Lys Glu Leu Ile
 340 345 350
 Gly Ser Met Lys Ile Asn Gly Arg Val Ala Ala Ser Thr Phe Ser Ser
 355 360 365
 Asp Ser Lys Lys Val Tyr Ala Ser Ser Gly Asp Gly Glu Val Tyr Val
 370 375 380
 Trp Asp Val Asn Ser Arg Lys Cys Leu Asn Arg Phe Val Asp Glu Gly
 385 390 395 400
 Ser Leu Tyr Gly Leu Ser Ile Ala Thr Ser Arg Asn Gly Gln Tyr Val
 405 410 415
 Ala Cys Gly Ser Asn Cys Gly Val Val Asn Ile Tyr Asn Gln Asp Ser
 420 425 430
 Cys Leu Gln Glu Thr Asn Pro Lys Pro Ile Lys Ala Ile Met Asn Leu
 435 440 445
 Val Thr Gly Val Thr Ser Leu Thr Phe Asn Pro Thr Thr Glu Ile Leu
 450 455 460
 Ala Ile Ala Ser Glu Lys Met Lys Glu Ala Val Arg Leu Val His Leu
 465 470 475 480
 Pro Ser Cys Thr Val Phe Ser Asn Phe Pro Val Ile Lys Asn Lys Asn
 485 490 495
 Ile Ser His Val His Thr Met Asp Phe Ser Pro Arg Ser Gly Tyr Phe
 500 505 510
 Ala Leu Gly Asn Glu Lys Gly Lys Ala Leu Met Tyr Arg Leu His His
 515 520 525
 Tyr Ser Asp Phe
 530

<210> 4613

<211> 454

<212> DNA

<213> Homo sapiens

<400> 4613

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 120
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 180
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 240
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 300
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 360
 attgggacgt ggcattgttt cattaaagcg aggtgttctt cctcgtggc tgcgtgtctc
 420
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 454

<210> 4614

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4614

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Pro	Val	Thr	Cys	Leu	Ala	Pro	Thr	Ser	Asn	Glu	Phe	Thr	Arg	Gly	Asn
			20					25					30		
Glu	Phe	Thr	Asn	Gly	Asn	Leu	Thr	Met	Ser	Asn	Glu	Phe	His	Cys	Lys
		35				40						45			
Asp	Phe	Leu	Ile	Phe	Thr	Thr	Gln	Ile	Leu	Thr	Ile	Leu	Gln	Leu	Arg
		50			55					60					
Ser	Leu	Asn	Ile	Ile	Tyr	Asn	Lys	Gln	Asn	Leu	Val	Asn	Leu	Gln	Lys
65			70			75								80	
Ser	Asn	Ala	Leu	Lys	Lys	His	Gln	Ser	Leu	Cys	Met	Cys	Arg	Thr	Asp
		85				90							95		
Pro	Ala	Pro	Gln	Gly	Asn	Thr	Ala	Gly	Thr	Val	Pro	Arg	Thr	Leu	Thr
		100				105							110		
Ser	Val	Ser	Leu	Leu											
		115													

<210> 4615

<211> 1350

<212> DNA

<213> Homo sapiens

<400> 4615

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 120
 aaataaaagc gttgcagctg tggaaggaga tagaaaaactg acatctctgga ttggctgatg
 180
 ttagaataatc gataatatgt gctgttcgtc aagaatatgt cgagcttgga gatcagctcc
 240

tcgtgcttca gcctggagac gaaattgccg ttatccccc cattagtga ggatagtgt
 300
 tttgagccat ctaggaaaga tatggatgaa gttgaagaga aatctaaaga tgttataaac
 360
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 420
 ggtgcaatat ccctatttgt agggactaca agaaataact ttgaaggaaa aaaagtcatt
 480
 agcttagaat atgaagcata tctacccatg gcggaaaatg aagtcagaaa gattttgtagt
 540
 gacattaggc agaaatggcc agtcaaacac atagcagtgt tccatctgct tggcttgggt
 600
 ccagtgtcag aagcaagcac agttattgct gtgtcctcag cccacagagc tgcattctct
 660
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 720
 atatatgaag agtcatcaac ttggaaagga aacaagagt gcttttgggc atccaacagt
 780
 taatcacctta tgtttttaga gcatgcaatc ttaactttgt taaactatta ttattgatca
 840
 cattttgatt tttttctctc cacatcagga tagtttactg aagcacaatc tcttatacta
 900
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 960
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 1020
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 1080
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 1140
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 1200
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 1320
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 1350

<210> 4616

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4616

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 20 25 30
 Arg Lys Asp Met Asp Glu Val Glu Lys Ser Lys Asp Val Ile Asn
 35 40 45
 Phe Thr Ala Glu Lys Leu Ser Val Asp Glu Val Ser Gln Leu Val Ile
 50 55 60
 Ser Pro Leu Cys Gly Ala Ile Ser Leu Phe Val Gly Thr Thr Arg Asn

65		70		75		80									
Asn	Phe	Glu	Gly	Lys	Val	Ile	Ser	Leu	Glu	Tyr	Glu	Ala	Tyr	Leu	
			85					90					95		
Pro	Met	Ala	Glu	Asn	Glu	Val	Arg	Lys	Ile	Cys	Ser	Asp	Ile	Arg	Gln
		100						105					110		
Lys	Trp	Pro	Val	Lys	His	Ile	Ala	Val	Phe	His	Leu	Leu	Gly	Leu	Val
		115					120					125			
Pro	Val	Ser	Glu	Ala	Ser	Thr	Val	Ile	Ala	Val	Ser	Ser	Ala	His	Arg
		130					135				140				
Ala	Ala	Ser	Leu	Glu	Ala	Val	Ser	Tyr	Ala	Ile	Asp	Ser	Leu	Lys	Ala
		145			150					155				160	
Lys	Val	Pro	Ile	Trp	Lys	Lys	Glu	Ile	Tyr	Glu	Glu	Ser	Ser	Thr	Trp
			165					170						175	
Lys	Gly	Asn	Lys	Glu	Cys	Phe	Trp	Ala	Ser	Asn	Ser				
			180					185							

<210> 4617

<211> 2266

<212> DNA

<213> Homo sapiens

<400> 4617

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 120
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 180
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 240
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 300
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 360
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 420
 accagccagg cccccaacaa agaccccaact gctgctgccg ccgcaetcaa tggaggccac
 480
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 540
 agcgggtacc tcaacctgct ggccaacacc atcgataact tcaaccacgg gctggctgtg
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 gctgccagct tccttgtgag caagaagatc gggctcctga caaccatggc catcctcctg
 660
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 720
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 780
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 840
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 900
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 960

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 1020
 gcaataagat gctcggtatc actctgtgac cgcataatgt agaggcagag agggcgagtg
 1080
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 1140
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 1200
 cggggccacc tgtagcgctt gtcccagcc atgctgtgtg tacctctcct tgccgcccctg
 1260
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 1320
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 1380
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<210> 4618

<211> 197

<212> FRT

<213> Homo sapiens

<400> 4618

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1

5

10

15

Asp Pro Thr Ala Ala Ala Ala Ala Leu Asn Gly Gly His Cys Leu Ala

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Gln Pro Thr Ala Glu Pro Gly Leu Gly Ala Val Val Arg Ser Ile Lys
      35                40                45
Val Ser Gly Tyr Leu Asn Leu Leu Ala Asn Thr Ile Asp Asn Phe Thr
      50                55                60
His Gly Leu Ala Val Ala Ala Ser Phe Leu Val Ser Lys Lys Ile Gly
      65                70                75                80
Leu Leu Thr Thr Met Ala Ile Leu Leu His Glu Ile Pro His Glu Val
      85                90                95
Gly Asp Phe Ala Ile Leu Leu Arg Ala Gly Phe Asp Arg Trp Ser Ala
      100                105                110
Ala Lys Leu Gln Leu Ser Thr Ala Leu Gly Gly Leu Leu Gly Ala Gly
      115                120                125
Phe Ala Ile Cys Thr Gln Ser Pro Lys Gly Val Glu Glu Thr Ala Ala
      130                135                140
Trp Val Leu Pro Phe Thr Ser Gly Gly Phe Leu Tyr Ile Ala Leu Val
      145                150                155                160
Asn Val Leu Pro Asp Leu Leu Glu Glu Glu Asp Pro Trp Arg Ser Leu
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Gln Gln Leu Leu Leu Leu Cys Ala Gly Ile Val Val Met Val Leu Phe
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Ser Leu Phe Val Asp
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<210> 4619
 <211> 539
 <212> DNA
 <213> Homo sapiens

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420
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<210> 4620
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 4620

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Thr Lys Phe His Arg Leu Phe Leu Leu Pro Thr Gly Tyr Gly Gln Gly
 20           25           30
Leu Gln Ala Arg Pro Asn Pro Arg Phe Pro Gly Arg Cys Thr Pro Gly
 35           40           45
Trp Glu Lys Leu Thr Asn Glu Ser Ser Trp Gln Pro Pro Gln Ala Pro
 50           55           60
Pro Asp Trp Ala Ser Trp Leu Cys Cys Gln Asp Tyr Asp Pro Leu Pro
 65           70           75           80
Glu Ser Arg Arg Ser Pro Gln Ala Glu Arg Tyr Arg His Leu Cys Pro
 85           90           95
Tyr Leu Asn Gln Glu Val Pro
100

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<210> 4621

<211> 2588

<212> DNA

<213> Homo sapiens

<400> 4621

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360
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420
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480
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960

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2400
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2460
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2588

<210> 4622
<211> 403
<212> PRT
<213> Homo sapiens

<400> 4622
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Thr Leu Thr Leu Arg Met Leu Met His Gly Lys Glu Val Gly Ser Ile
20 25 30
Ile Gly Lys Lys Gly Glu Thr Val Lys Arg Ile Arg Glu Gln Ser Ser
35 40 45
Ala Arg Ile Thr Ile Ser Glu Gly Ser Cys Pro Glu Arg Ile Thr Thr
50 55 60
Ile Thr Gly Ser Thr Ala Ala Val Phe His Ala Val Ser Met Ile Ala
65 70 75 80
Phe Lys Leu Asp Glu Asp Leu Cys Ala Ala Pro Ala Asn Gly Gly Asn
85 90 95
Val Ser Arg Pro Pro Val Thr Leu Arg Leu Val Ile Pro Ala Ser Gln
100 105 110
Cys Gly Ser Leu Ile Gly Lys Ala Gly Thr Lys Ile Lys Glu Ile Arg
115 120 125
Glu Thr Thr Gly Ala Gln Val Gln Val Ala Gly Asp Leu Leu Pro Asn
130 135 140
Ser Thr Glu Arg Ala Val Thr Val Ser Gly Val Pro Asp Ala Ile Ile
145 150 155 160
Leu Cys Val Arg Gln Ile Cys Ala Val Ile Leu Glu Ser Pro Pro Lys
165 170 175
Gly Ala Thr Ile Pro Tyr His Pro Ser Leu Ser Leu Gly Thr Val Leu
180 185 190
Leu Ser Ala Asn Gln Gly Phe Ser Val Gln Gly Gln Tyr Gly Ala Val
195 200 205
Thr Pro Ala Glu Val Thr Lys Leu Gln Gln Leu Ser Ser His Ala Val
210 215 220
Pro Phe Ala Thr Pro Ser Val Val Pro Gly Leu Asp Pro Gly Thr Gln
225 230 235 240
Thr Ser Ser Gln Glu Phe Leu Val Pro Asn Asp Leu Ile Gly Cys Val
245 250 255
Ile Gly Arg Gln Gly Ser Lys Ile Ser Glu Ile Arg Gln Met Ser Gly
260 265 270
Ala His Ile Lys Ile Gly Asn Gln Ala Glu Gly Ala Gly Glu Arg His
275 280 285
Val Thr Ile Thr Gly Ser Pro Val Ser Ile Ala Leu Ala Gln Tyr Leu
290 295 300
Ile Thr Ala Cys Leu Glu Thr Ala Lys Ser Thr Ser Gly Gly Thr Pro
305 310 315 320
Gly Ser Ala Pro Ala Asp Leu Pro Thr Pro Phe Ser Pro Pro Leu Thr
325 330 335
Ala Leu Pro Thr Ala Pro Pro Gly Leu Leu Gly Thr Pro Tyr Ala Ile
340 345 350
Ser Leu Ser Asn Phe Ile Gly Leu Lys Pro Val Pro Phe Leu Ala Leu

	355				360					365				
Pro	Pro	Ala	Ser	Pro	Gly	Pro	Pro	Gly	Leu	Ala	Ala	Tyr	Thr	Ala
	370				375				380					
Lys	Met	Ala	Ala	Ala	Asn	Gly	Ser	Lys	Lys	Ala	Glu	Arg	Gln	Lys
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Ser	Pro	Tyr												

<210> 4623

<211> 2220

<212> DNA

<213> Homo sapiens

<400> 4623

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180
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240
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360
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720
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1140
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1200

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<210> 4624

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4624

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 20 25 30
 Asp Pro Trp Lys Glu Glu Thr Asp Thr Asp Leu Glu Val Val Leu Glu
 35 40 45
 Lys Lys Gly Asn Met Asp Glu Ala His Ile Asp Gln Val Arg Arg Lys
 50 55 60
 Ala Leu Gln Glu Glu Ile Asp Arg Glu Ser Gly Lys Thr Glu Ala Ser
 65 70 75 80
 Glu Thr Arg Lys Trp Thr Gly Thr Gln Phe Gly Gln Trp Asp Thr Ala
 85 90 95
 Gly Phe Glu Asn Glu Asp Gln Lys Leu Lys Phe Leu Arg Leu Met Gly

```

          100              105              110
Gly Phe Lys Asn Leu Ser Pro Ser Phe Ser Arg Pro Ala Ser Thr Ile
          115              120              125
Ala Arg Pro Asn Met Ala Leu Gly Lys Lys Ala Ala Asp Ser Leu Gln
          130              135              140
Gln Asn Leu Gln Arg Asp Tyr Asp Arg Ala Met Ser Trp Lys Tyr Ser
          145              150              155              160
Arg Gly Ala Gly Leu Gly Phe Ser Thr Ala Pro Asn Lys Ile Phe Tyr
          165              170              175
Ile Asp Arg Asn Ala Ser Lys Ser Val Lys Leu Glu Asp
          180              185

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<210> 4625

<211> 334

<212> DNA

<213> Homo sapiens

<400> 4625

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<210> 4626

<211> 111

<212> PRT

<213> Homo sapiens

<400> 4626

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20     25     30
Glu Gln Glu Tyr Lys Arg Lys Gln Leu Glu Glu Gln Arg Gln Ser Glu
35     40     45
Arg Leu Gln Arg Gln Leu Gln Gln Glu His Ala Tyr Leu Lys Ser Leu
50     55     60
Gln Gln Gln Gln Gln Gln Gln Leu Gln Lys Gln Gln Gln Gln Gln
65     70     75     80
Leu Leu Pro Gly Asp Arg Lys Pro Leu Tyr His Tyr Gly Arg Gly Met
85     90     95
Asn Pro Ala Asp Lys Pro Ala Trp Ala Arg Glu Gly Glu Glu Arg
100    105    110

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<210> 4627

<211> 1736

<212> DNA

<213> Homo sapiens

<400> 4627

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120
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180
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360
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 1736

<210> 4628

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4628

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 20 25 30
 Pro Glu Ala Lys Gln Glu Ile Leu Glu Asn Lys Asp Val Val Val Gln
 35 40 45
 His Val His Phe Asp Gly Leu Gly Arg Thr Lys Asp Asp Ile Ile Ile
 50 55 60
 Cys Glu Ile Gly Asp Val Phe Lys Ala Lys Asn Leu Ile Glu Val Met
 65 70 75 80
 Arg Lys Ser His Glu Ala Arg Glu Lys Leu Arg Leu Gly Ile Phe
 85 90 95
 Arg Gln Val Asp Val Leu Ile Asp Thr Cys Gln Gly Asp Gly Ala Leu
 100 105 110
 Pro Asn Gly Leu Asp Val Thr Phe Glu Val Thr Glu Leu Arg Arg Leu
 115 120 125
 Thr Gly Ser Tyr Asn Thr Met Val Gly Asn Asn Glu Gly Ser Met Val
 130 135 140
 Leu Gly Leu Lys Leu Pro Asn Leu Leu Gly Arg Ala Glu Lys Val Thr
 145 150 155 160
 Phe Gln Phe Ser Tyr Gly Thr Lys Glu Thr Ser Tyr Gly Leu Ser Phe
 165 170 175
 Phe Lys Pro Arg Pro Gly Asn Phe Glu Arg Asn Phe Ser Val Asn Leu
 180 185 190
 Tyr Lys Val Thr Gly Gln Phe Pro Trp Ser Ser Leu Arg Glu Thr Asp
 195 200 205
 Arg Gly Met Ser Ala Glu Tyr Ser Phe Pro Ile Trp Lys Thr Ser His
 210 215 220
 Thr Val Lys Trp Glu Gly Val Trp Arg Glu Leu Gly Cys Leu Ser Arg
 225 230 235 240
 Thr Ala Ser Phe Ala Val Arg Lys Glu Ser Gly His Ser Leu Lys Ser
 245 250 255
 Ser Leu Ser His Ala Met Val Ile Asp Ser Arg Asn Ser Ser Ile Leu
 260 265 270
 Pro Arg Arg Gly Ala Leu Leu Lys Val Asn Gln Glu Leu Ala Gly Tyr
 275 280 285
 Thr Gly Gly Asp Val Ser Phe Ile Lys Glu Asp Phe Glu Leu Gln Leu
 290 295 300
 Asn Lys Gln Leu Ile Phe Asp Ser Val Phe Ser Ala Ser Phe Trp Gly

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305          310          315          320
Gly Met Leu Val Pro Ile Gly Asp Lys Pro Ser Ser Ile Ala Asp Arg
          325          330          335
Phe Tyr Leu Gly Gly Pro Thr Ser Val Arg Gly Phe Ser Met His Ser
          340          345          350
Ile Gly Pro Gln Ser Glu Gly Asp Tyr Leu Gly Gly Glu Ala Tyr Trp
          355          360          365
Ala Gly Gly Leu His Leu Tyr Thr Pro Leu Pro Phe Arg Pro Gly Gln
          370          375          380
Gly Gly Phe Gly Glu Leu Phe Arg Thr His Phe Phe Leu Asn Ala Gly
385          390          395          400
Asn Leu Cys Asn Leu Asn Tyr Gly Glu Gly Pro Lys Ala His Ile Arg
          405          410          415
Lys Leu Ala Glu Cys Ile Arg Trp Ser Tyr Gly Ala Gly Ile Val Leu
          420          425          430
Arg Leu Gly Asn Ile Ala Arg Leu Glu Leu Asn Tyr Cys Val Pro Met
          435          440          445
Gly Val Gln Thr Gly Asp Arg Ile Cys Asp Gly Val Gln Phe Gly Ala
          450          455          460
Gly Ile Arg Phe Leu
465

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<210> 4629

<211> 706

<212> DNA

<213> Homo sapiens

<400> 4629

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<210> 4630

<211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4630
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 20 25 30
 Arg Asp Gln Gly Ala Leu Ser Leu Ser Arg Met Gly Arg Asp Ala Ser
 35 40 45
 Ser Trp Ala Leu Arg Val Ser Val Phe Pro Gln Ile Gly Lys Met Arg
 50 55 60
 Gly Arg Gly Gly Tyr Trp Gly Gln Ala Ser Ala Gln Pro Trp Val Leu
 65 70 75 80
 Leu Glu Pro Gly Leu Glu Pro Glu Val Gly Arg Val Ser Lys Leu Ser
 85 90 95
 Ser Trp Ile Pro Ile Cys Arg Thr Ala Pro Arg Thr Arg Ser Gly Val
 100 105 110
 Arg Ala His Pro Leu Ala Arg Ile Leu Gly Ser Leu Gly His Lys Ala
 115 120 125
 Gly Gln Gly Thr Arg Asp Pro Pro Thr Gln Glu Thr
 130 135 140

<210> 4631
 <211> 2756
 <212> DNA
 <213> Homo sapiens

<400> 4631
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 180
 gaagacattg tgaccatttc gcaggcaacc ccaggttcag tgtccagagg cacagcccc
 240
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 300
 gaagaggaag gccagaggag cagggtttat gctgggggct cagagagaag tggacagcag
 360
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 720

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2160
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2280
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2340

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 2460
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 2640
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 2756

<210> 4632

<211> 372

<212> PRT

<213> Homo sapiens

<400> 4632

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 20 25 30
 Asp Leu Gln Ile Ala Leu Ala Ser Phe Tyr Glu Asp Gly Gly Asp Glu
 35 40 45
 Asp Ile Val Thr Ile Ser Gln Ala Thr Pro Ser Ser Val Ser Arg Gly
 50 55 60
 Thr Ala Pro Ser Asp Asn Arg Val Thr Ser Phe Arg Asp Leu Ile His
 65 70 75 80
 Asp Gln Asp Glu Asp Glu Glu Glu Glu Gly Gln Arg Ser Arg Phe
 85 90 95
 Tyr Ala Gly Gly Ser Glu Arg Ser Gly Gln Gln Ile Val Gly Pro Pro
 100 105 110
 Arg Lys Lys Ser Pro Asn Glu Leu Val Asp Asp Leu Phe Lys Gly Ala
 115 120 125
 Lys Glu His Gly Ala Val Ala Val Glu Arg Val Thr Lys Ser Pro Gly
 130 135 140
 Glu Thr Ser Lys Pro Arg Pro Phe Ala Gly Gly Tyr Arg Leu Gly
 145 150 155 160
 Ala Ala Pro Glu Glu Glu Ser Ala Tyr Val Ala Gly Glu Lys Arg Gln
 165 170 175
 His Ser Ser Gln Asp Val His Val Val Leu Lys Leu Trp Lys Ser Gly
 180 185 190
 Phe Ser Leu Asp Asn Gly Glu Leu Arg Ser Tyr Gln Asp Pro Ser Asn
 195 200 205
 Ala Gln Phe Leu Glu Ser Ile Arg Arg Gly Glu Val Pro Ala Glu Leu
 210 215 220
 Arg Arg Leu Ala His Gly Gly Gln Val Asn Leu Asp Met Glu Asp His
 225 230 235 240
 Arg Asp Glu Asp Phe Val Lys Pro Lys Gly Ala Phe Lys Ala Phe Thr
 245 250 255
 Gly Glu Gly Gln Lys Leu Gly Ser Thr Ala Pro Gln Val Leu Ser Thr

```

                260                265                270
Ser Ser Pro Ala Gln Gln Ala Glu Asn Glu Ala Lys Ala Ser Ser Ser
      275                280                285
Ile Leu Ile Asp Glu Ser Glu Pro Thr Thr Asn Ile Gln Ile Arg Leu
      290                295                300
Ala Asp Gly Gly Arg Leu Val Gln Lys Phe Asn His Ser His Arg Ile
      305                310                315                320
Ser Asp Ile Arg Leu Phe Ile Val Asp Ala Arg Pro Ala Met Ala Ala
      325                330                335
Thr Ser Phe Ile Leu Met Thr Thr Phe Pro Asn Lys Glu Leu Ala Asp
      340                345                350
Glu Ser Gln Thr Leu Lys Glu Ala Asn Leu Leu Asn Ala Val Ile Val
      355                360                365
Gln Arg Leu Thr
      370

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<210> 4633
<211> 873
<212> DNA
<213> Homo sapiens

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<400> 4633
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120
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180
gagctcttttc ttcattctcag ggggacagct aggggttggt ctggacagga aagaagggaa
240
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300
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360
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420
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480
cagcacaggc agcatgatcc ccagccacac ttctagtcct tcggtgaggt tggcaaaacc
540
tgcttgacct agggccacac tgatggtgag acactttgct ggtcggtctt ggtgggacct
600
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660
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720
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780
actgaaagtg tggctgggga tcatgctgcc tgtgctgggc atcaagtctc tgtctccctt
840
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873

```

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<210> 4634

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<211> 242

<212> PRT

<213> Homo sapiens

<400> 4634

```

Met Leu Gln Glu Leu Asp Lys Thr Pro Gly Glu Ser Leu His Gly Tyr
 1           5           10           15
Arg Ile Cys Ile Gln Ala Ile Leu Gln Asp Lys Pro Lys Ile Ala Thr
 20           25           30
Ala Asn Leu Gly Lys Phe Leu Glu Leu Leu Arg Ser His Gln Ser Arg
 35           40           45
Pro Ala Lys Cys Leu Thr Ile Met Trp Ala Leu Gly Gln Ala Gly Phe
 50           55           60
Ala Asn Leu Thr Glu Gly Leu Lys Val Trp Leu Gly Ile Met Leu Pro
 65           70           75           80
Val Leu Gly Ile Lys Ser Leu Ser Pro Phe Ala Ile Thr Tyr Leu Asp
 85           90           95
Arg Leu Leu Leu Met His Pro Asn Leu Thr Lys Gly Phe Gly Met Ile
100           105           110
Gly Pro Lys Asp Phe Phe Pro Leu Leu Asp Phe Ala Tyr Met Pro Asn
115           120           125
Asn Ser Leu Thr Pro Ser Leu Gln Glu Gln Leu Cys Gln Leu Tyr Pro
130           135           140
Arg Leu Lys Val Leu Ala Phe Gly Ala Lys Pro Asp Ser Thr Leu His
145           150           155           160
Thr Tyr Phe Pro Ser Phe Leu Ser Arg Ala Thr Pro Ser Cys Pro Pro
165           170           175
Glu Met Lys Lys Glu Leu Leu Ser Ser Leu Thr Glu Cys Leu Thr Val
180           185           190
Asp Pro Leu Ser Ala Ser Val Trp Arg Gln Leu Tyr Pro Lys His Leu
195           200           205
Ser Gln Ser Ser Leu Leu Glu His Leu Leu Ser Ser Trp Glu Gln
210           215           220
Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln Ser Leu
225           230           235           240
Lys Leu

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<210> 4635

<211> 384

<212> DNA

<213> Homo sapiens

<400> 4635

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120
agtggggccc gaggaggaag gcgggtggtg tgtgggcaga gccagccagt ggtggcccttc
180
ctcctcccca agatgagttt tgtagcccaa gtgtttgcac actcacactt gctcactccc
240
tcacacacaa aaccctcact ctttgccttt tctggggaga gggaggccac tggcagaagc
300

```

gcctaccctg gccacagtca gttcccatc tcattttcta agaattttat cacaaaacag
 360
 tttgtcttga ggctgagatg gggg
 384

<210> 4636
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 4636
 Met Leu Gly Gly Pro Val Cys Ser Tyr Glu Leu Gly Gly Cys Pro Val
 1 5 10 15
 Thr Arg Val Leu Gly Gln Pro Arg Lys Leu Phe Ser Ile Gly Trp Gly
 20 25 30
 Lys Glu Val Lys Trp Gly Pro Arg Arg Lys Ala Gly Gly Val Trp Ala
 35 40 45
 Glu Pro Ala Ser Gly Gly Leu Pro Pro Pro Glu Asp Glu Phe Cys Ser
 50 55 60
 Pro Gly Val Cys Thr Leu Thr Leu Ala His Ser Leu Thr His Lys Thr
 65 70 75 80
 Leu Thr Leu Cys Phe Phe Trp Gly Glu Gly Gly His Trp Gln Lys Arg
 85 90 95
 Leu Pro Trp Pro Gln Ser Val Pro Ile Leu Ile Phe
 100 105

<210> 4637
 <211> 2162
 <212> DNA
 <213> Homo sapiens

<400> 4637
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 120
 agctgctttt ctttcaacca ggactgcaca tccctagcaa ttggaactaa agccgggtat
 180
 aagctgtttt ctctgagttc tgtggagcag ctggatcaag tccacggaag caatgaaatc
 240
 ccggacgtct acatcgtgga ggcctcttc tccagcagcc tgggtgtggt agtcagtcac
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 360
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 420
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 660

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720
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780
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1020
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1080
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1140
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<210> 4638

<211> 446

<212> PRT

<213> Homo sapiens

<400> 4638

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          20          25          30
Thr Lys Ala Gly Tyr Lys Leu Phe Ser Leu Ser Ser Val Glu Gln Leu
          35          40          45
Asp Gln Val His Gly Ser Asn Glu Ile Pro Asp Val Tyr Ile Val Glu
          50          55          60
Arg Leu Phe Ser Ser Ser Leu Val Val Val Val Ser His Thr Lys Pro
65          70          75          80
Arg Gln Met Asn Val Tyr His Phe Lys Lys Gly Thr Glu Ile Cys Asn
          85          90          95
Tyr Ser Tyr Ser Ser Asn Ile Leu Ser Ile Arg Leu Asn Arg Gln Arg
          100          105          110
Leu Leu Val Cys Leu Glu Glu Ser Ile Tyr Ile His Asn Ile Lys Asp
          115          120          125
Met Lys Leu Leu Lys Thr Leu Leu Asp Ile Pro Ala Asn Pro Thr Gly
          130          135          140
Leu Cys Ala Leu Ser Ile Asn His Ser Asn Ser Tyr Leu Ala Tyr Pro
145          150          155          160
Gly Ser Leu Thr Ser Gly Glu Ile Val Leu Tyr Asp Gly Asn Ser Leu
          165          170          175
Lys Thr Val Cys Thr Ile Ala Ala His Glu Gly Thr Leu Ala Ala Ile
          180          185          190
Thr Phe Asn Ala Ser Gly Ser Lys Leu Ala Ser Ala Ser Glu Lys Gly
          195          200          205
Thr Val Ile Arg Val Phe Ser Val Pro Asp Gly Gln Lys Leu Tyr Glu
          210          215          220
Phe Arg Arg Gly Met Lys Arg Tyr Val Thr Ile Ser Ser Leu Val Phe
225          230          235          240
Ser Met Asp Ser Gln Phe Leu Cys Ala Ser Ser Asn Thr Glu Thr Val
          245          250          255
His Ile Phe Lys Leu Glu Gln Val Thr Asn Ser Arg Pro Glu Glu Pro
          260          265          270
Ser Thr Trp Ser Gly Tyr Met Gly Lys Met Phe Met Ala Ala Thr Asn
          275          280          285
Tyr Leu Pro Thr Gln Val Ser Asp Met Met His Gln Asp Arg Ala Phe
          290          295          300
Ala Thr Ala Arg Leu Asn Phe Ser Gly Gln Arg Asn Ile Cys Thr Leu
305          310          315          320
Ser Thr Ile Gln Lys Leu Pro Arg Leu Leu Val Ala Ser Ser Ser Gly
          325          330          335
His Leu Tyr Met Tyr Asn Leu Asp Pro Gln Asp Gly Gly Glu Cys Val
          340          345          350
Leu Ile Lys Thr His Ser Leu Leu Gly Ser Gly Thr Thr Glu Glu Asn
          355          360          365
Lys Glu Asn Asp Leu Arg Pro Ser Leu Pro Gln Ser Tyr Ala Ala Thr
          370          375          380
Val Ala Arg Pro Ser Ala Ser Ser Ala Ser Thr Val Pro Gly Tyr Ser

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385		390		395		400
Glu Asp Gly Gly Ala Leu Arg Gly Glu Val Ile Pro Glu His Glu Phe						
	405		410		415	
Ala Thr Gly Pro Val Cys Leu Asp Asp Glu Asn Glu Phe Pro Pro Ile						
	420		425		430	
Ile Leu Cys Arg Gly Asn Gln Lys Gly Lys Thr Lys Gln Ser						
	435		440		445	

<210> 4639

<211> 1007

<212> DNA

<213> Homo sapiens

<400> 4639

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120
ttaacatttt caatgtcaaa aatacagcac gctgttaaga gttctgtcag tgctcattat
180
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240
caccatattc cacaggcttt ctcccctagg acgtactaac agggagtttc cacaggga
300
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540
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600
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720
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780
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840
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900
atagaccat gccctctgca gaagggtga ggtttaggca aggcacaattc cttcccctgt
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1007

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<210> 4640

<211> 71

<212> PRT

<213> Homo sapiens

<400> 4640

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Met Asn Thr Ile Gly Phe His Lys Ser Phe Cys Cys Cys Leu Asp Ser
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Pro Cys Phe Phe Leu Glu Arg Asn Ile Pro Asn Phe Leu Leu Leu
      20           25           30
Leu Arg Arg Ser Phe Ala Leu Val Ala Gln Ala Arg Val Gln Trp Arg
 35           40           45
Asp Leu Ser Ser Leu Gln Pro Pro Pro Pro Arg Leu Lys Arg Phe Ser
 50           55           60
His Leu Ser Leu Pro Ser Ser
65           70

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<210> 4641

<211> 1873

<212> DNA

<213> Homo sapiens

<400> 4641

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<210> 4642

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4642

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Gln	Trp	Asn	Tyr	Cys	Thr	Leu	Ser	Gln	Glu	Ile	Leu	Arg	Arg	Pro	Ile
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Val	Ala	Cys	Glu	Leu	Gly	Arg	Leu	Tyr	Asn	Lys	Asp	Ala	Val	Ile	Glu
				50			55				60				
Phe	Leu	Leu	Asp	Lys	Ser	Ala	Glu	Lys	Ala	Leu	Gly	Lys	Ala	Ala	Ser
				65			70				75				80
His	Ile	Lys	Ser	Ile	Lys	Asn	Val	Thr	Glu	Leu	Lys	Leu	Ser	Asp	Asn
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Pro	Ala	Trp	Glu	Gly	Asp	Lys	Gly	Asn	Thr	Lys	Gly	Asp	Lys	His	Asp
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Asp	Leu	Gln	Arg	Ala	Arg	Phe	Ile	Cys	Pro	Val	Val	Gly	Leu	Glu	Met
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Asn	Gly	Arg	His	Arg	Phe	Cys	Phe	Leu	Arg	Cys	Cys	Gly	Cys	Val	Phe
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Ser	Glu	Arg	Ala	Leu	Lys	Glu	Ile	Lys	Ala	Glu	Val	Cys	His	Thr	Cys

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<211> 270

<212> PRT

<213> Homo sapiens

<400> 4644

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		20					25					30			
Gly	Ala	Arg	Val	Val	Ile	Cys	Asp	Lys	Asp	Glu	Ser	Gly	Gly	Arg	Ala
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Leu	Glu	Gln	Glu	Leu	Pro	Gly	Ala	Val	Phe	Ile	Leu	Cys	Asp	Val	Thr
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Gln	Glu	Asp	Asp	Met	Lys	Thr	Leu	Val	Ser	Glu	Thr	Ile	Arg	Arg	Phe
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Gly	Arg	Leu	Asp	Cys	Val	Val	Asn	Asn	Ala	Gly	His	His	Pro	Pro	Pro
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Gln	Arg	Pro	Glu	Glu	Thr	Ser	Ala	Gln	Gly	Phe	Arg	Gln	Leu	Leu	Glu
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Leu	Asn	Leu	Leu	Gly	Thr	Tyr	Thr	Leu	Thr	Lys	Leu	Ala	Leu	Pro	Tyr
		115				120					125				
Leu	Arg	Lys	Ser	Gln	Gly	Asn	Val	Ile	Asn	Ile	Ser	Ser	Leu	Val	Gly
		130			135						140				
Ala	Ile	Gly	Gln	Ala	Gln	Ala	Val	Pro	Tyr	Val	Ala	Thr	Lys	Gly	Ala
145					150				155					160	
Val	Thr	Ala	Met	Thr	Lys	Ala	Leu	Ala	Leu	Asp	Glu	Ser	Pro	Tyr	Gly
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Val	Arg	Val	Asn	Cys	Ile	Ser	Pro	Gly	Asn	Ile	Trp	Thr	Pro	Leu	Trp
		180						185					190		
Glu	Glu	Leu	Ala	Ala	Leu	Met	Pro	Asp	Pro	Arg	Ala	Thr	Ile	Arg	Glu
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Gly	Met	Leu	Ala	Gln	Pro	Leu	Gly	Arg	Met	Gly	Gln	Pro	Ala	Glu	Val
		210				215					220				
Gly	Ala	Ala	Ala	Val	Phe	Leu	Ala	Ser	Glu	Ala	Asn	Phe	Cys	Thr	Gly
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Ile	Glu	Leu	Leu	Val	Thr	Gly	Gly	Ala	Glu	Leu	Gly	Tyr	Gly	Cys	Lys
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<212> DNA
<213> Homo sapiens

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<210> 4646

<211> 358

<212> PRT

<213> Homo sapiens

<400> 4646

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 Ala Leu Gln Leu His Pro Asp Arg Asn Pro Asp Asp Pro Gln Ala Gln
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 Glu Lys Phe Gln Asp Leu Gly Ala Ala Tyr Glu Val Leu Ser Asp Ser
 65 70 75 80
 Glu Lys Arg Lys Gln Tyr Asp Thr Tyr Gly Glu Glu Gly Leu Lys Asp
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 Gly His Gln Ser Ser His Gly Asp Ile Phe Ser His Phe Phe Gly Asp
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 Pro Arg Gly Ser Asp Ile Ile Val Asp Leu Glu Val Thr Leu Glu Glu
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 Val Tyr Ala Gly Asn Phe Val Glu Val Val Arg Asn Lys Pro Val Ala
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 Arg Gln Ala Pro Gly Lys Arg Lys Cys Asn Cys Arg Gln Glu Met Arg
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 Thr Thr Gln Leu Gly Pro Gly Arg Phe Gln Met Thr Gln Glu Val Val
 180 185 190
 Cys Asp Glu Cys Pro Asn Val Lys Leu Val Asn Glu Glu Arg Thr Leu
 195 200 205
 Glu Val Glu Ile Glu Pro Gly Val Arg Asp Gly Met Glu Tyr Pro Phe
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 Ile Gly Glu Gly Glu Pro His Val Asp Gly Glu Pro Gly Asp Leu Arg
 225 230 235 240
 Phe Arg Ile Lys Val Val Lys His Pro Ile Phe Glu Arg Arg Gly Asp
 245 250 255
 Asp Leu Tyr Thr Asn Val Thr Ile Ser Leu Val Glu Ser Leu Val Gly
 260 265 270
 Phe Glu Met Asp Ile Thr His Leu Asp Gly His Lys Val His Ile Ser
 275 280 285
 Arg Asp Lys Ile Thr Arg Pro Gly Ala Lys Leu Trp Lys Lys Gly Glu

290		295		300
Gly Leu Pro Asn Phe	Asp Asn Asn Ile	Lys Gly Ser Leu Ile Ile		
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<210> 4647

<211> 791

<212> DNA

<213> Homo sapiens

<400> 4647

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<210> 4648

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4648

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<210> 4650

<211> 965

<212> PRT

<213> Homo sapiens

<400> 4650

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 35 40 45
 Gly Leu Gln Asp Gln Leu Leu Gly Ile Val Ala Ala Lys Glu Lys Pro
 50 55 60
 Glu Leu Glu Glu Lys Lys Asn Gln Leu Ile Val Glu Ser Ala Lys Asn
 65 70 75 80
 Lys Lys His Leu Lys Glu Ile Glu Asp Lys Ile Leu Glu Val Leu Ser
 85 90 95
 Met Ser Lys Gly Asn Ile Leu Glu Asp Glu Thr Ala Ile Lys Val Leu
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 Ser Ser Ser Lys Val Leu Ser Glu Glu Ile Ser Glu Lys Gln Lys Val
 115 120 125
 Ala Ser Met Thr Glu Thr Gln Ile Asp Glu Thr Arg Met Gly Tyr Lys

130
 Pro Val Ala Val His Ser Ala Thr Ile Phe Phe Cys Ile Ser Asp Leu
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 Leu Tyr Met His Ser Leu Thr His Ser Thr Lys Ser Glu Glu Leu Asn
 180 185 190
 Leu Arg Ile Lys Tyr Ile Ile Asp His Phe Thr Leu Ser Ile Tyr Asn
 195 200 205
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 225 230 235 240
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 245 250 255
 Pro Asn Pro Ala Pro Gln Trp Leu Ser Glu Lys Ala Trp Ala Glu Ile
 260 265 270
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 290 295 300
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 Pro Ser Glu Lys Phe Pro Val Ser Ile Leu Gln Asn Gly Ile Lys Met
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 485 490 495
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 Ala Val Met Trp Gln Lys Met Leu Phe Gly Leu Cys Phe Phe His Ala
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 Tyr Glu Phe Asn Glu Ser Asp Leu Arg Ile Ser Met Trp Gln Ile Gln
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 Ile Thr Ala His Pro Glu Val Phe Gly Leu His Glu Asn Ala Asp Ile
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 675 680 685
 Val Glu Glu Leu Ala Gln Asp Ile Leu Ser Lys Leu Pro Arg Asp Phe
 690 695 700
 Asp Leu Glu Glu Val Met Lys Leu Tyr Pro Val Val Tyr Glu Glu Ser
 705 710 715 720
 Met Asn Thr Val Leu Arg Gln Glu Leu Ile Arg Phe Asn Arg Leu Thr
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 Lys Val Val Arg Arg Ser Leu Ile Asn Leu Gly Arg Ala Ile Lys Gly
 740 745 750
 Gln Val Leu Met Ser Ser Glu Leu Glu Glu Val Phe Asn Ser Met Leu
 755 760 765
 Val Gly Lys Val Pro Ala Met Trp Ala Ala Lys Ser Tyr Pro Ser Leu
 770 775 780
 Lys Pro Leu Gly Gly Tyr Val Ala Asp Leu Leu Ala Arg Leu Thr Phe
 785 790 795 800
 Phe Gln Glu Trp Ile Asp Lys Gly Pro Pro Val Val Phe Trp Ile Ser
 805 810 815
 Gly Phe Tyr Phe Thr Gln Ser Phe Leu Thr Gly Val Ser Gln Asn Tyr
 820 825 830
 Ala Arg Lys Tyr Thr Ile Pro Ile Asp His Ile Gly Phe Glu Phe Glu
 835 840 845
 Val Thr Pro Gln Glu Thr Val Met Glu Asn Asn Pro Glu Asp Gly Ala
 850 855 860
 Tyr Ile Lys Gly Leu Phe Leu Glu Gly Ala Arg Trp Asp Arg Lys Thr
 865 870 875 880
 Met Gln Ile Gly Glu Ser Leu Pro Lys Ile Leu Tyr Asp Pro Leu Pro
 885 890 895
 Ile Ile Trp Leu Lys Pro Gly Glu Ser Ala Met Phe Leu His Gln Asp
 900 905 910
 Ile Tyr Val Cys Pro Val Tyr Lys Thr Ser Ala Arg Arg Gly Thr Leu
 915 920 925
 Ser Thr Thr Gly His Ser Thr Asn Tyr Val Leu Ser Ile Glu Leu Pro
 930 935 940
 Thr Asp Met Pro Gln Lys His Trp Ile Asn Arg Gly Val Ala Ser Leu
 945 950 955 960
 Cys Gln Leu Asp Asn
 965

<210> 4651

<211> 869

<212> DNA

<213> Homo sapiens

<400> 4651

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 120
 gccggcgcca gtctggtcct gagcctgctg cagaggggtg cgagctaacc goggaaatgg
 180
 cagcagatgc ggcccatccc cactgtggcc cgcgcctacc cactgggtgg ccacgcgctg
 240
 ctgatgaagc cggacggggc agaatttttt cagcagatca ttgagtacac agaggaatac
 300
 cggccatcgc cgtgctgtaa gctctgggtc gggccagtg ccatgggtgg cctttataat
 360
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 420
 aagtttttag aaccatggct tggcctagga cttcttaccaa gtactggaaa caaatggcgc
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 660
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 720
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 869

<210> 4652

<211> 289

<212> PRT

<213> Homo sapiens

<400> 4652

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Met	Ala	Gly	Leu	Trp	Leu	Gly	Leu	Val	Trp	Gln	Lys	Leu	Leu	Leu	Trp
			20					25					30		
Gly	Ala	Ala	Ser	Ala	Val	Ser	Leu	Ala	Gly	Ala	Ser	Leu	Val	Leu	Ser
		35					40				45				
Leu	Leu	Gln	Arg	Val	Ala	Ser	Tyr	Ala	Arg	Lys	Trp	Gln	Gln	Met	Arg
		50				55				60					
Pro	Ile	Pro	Thr	Val	Ala	Arg	Ala	Tyr	Pro	Leu	Val	Gly	His	Ala	Leu
65				70					75				80		
Leu	Met	Lys	Pro	Asp	Gly	Arg	Glu	Phe	Phe	Gln	Gln	Ile	Ile	Glu	Tyr
				85				90					95		
Thr	Glu	Glu	Tyr	Arg	His	Met	Pro	Leu	Leu	Lys	Leu	Trp	Val	Gly	Pro

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          100          105          110
Val Pro Met Val Ala Leu Tyr Asn Ala Glu Asn Val Glu Val Ile Leu
      115          120          125
Thr Ser Ser Lys Gln Ile Asp Lys Ser Ser Met Tyr Lys Phe Leu Glu
      130          135          140
Pro Trp Leu Gly Leu Gly Leu Leu Thr Ser Thr Gly Asn Lys Trp Arg
      145          150          155
Ser Arg Arg Lys Met Leu Thr Pro Thr Phe His Phe Thr Ile Leu Glu
      165          170          175
Asp Phe Leu Asp Ile Met Asn Glu Gln Ala Asn Ile Leu Val Lys Lys
      180          185          190
Leu Glu Lys His Ile Asn Gln Glu Ala Phe Asn Cys Phe Phe Tyr Ile
      195          200          205
Thr Leu Cys Ala Leu Asp Ile Ile Cys Glu Thr Ala Met Gly Lys Asn
      210          215          220
Ile Gly Ala Gln Ser Asn Asp Asp Ser Glu Tyr Val Arg Ala Val Tyr
      225          230          235
Arg Met Ser Glu Met Ile Phe Pro Arg Ile Lys Met Pro Trp Leu Trp
      245          250          255
Leu Asp Leu Trp Tyr Leu Met Phe Lys Glu Gly Trp Glu His Lys Lys
      260          265          270
Ser Leu Lys Ile Leu His Thr Phe Thr His Ser Val Ile Pro Glu Arg
      275          280          285
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<210> 4653

<211> 1276

<212> DNA

<213> Homo sapiens

<400> 4653

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120
gtttgaacct ctaacaaaaa ggaacgaaga tgcccaggag cctgcctacg gagacacggc
180
cagtaacgga gatccccaga tccacgtggg actcctgcgc gacagtggca gcgagtgtct
240
cctcgtgcac gtgctgcagc tgaagaaccc gccggggctg cgggtgaagg aagactgcaa
300
agtccacatc cgagtctatt tgccccact tcggtggata cgggctgtag caactgcacc
360
cagaccagcc ctccgtaccc agagccctgt tgcatgggta tcgactccat cctgggccac
420
ccatttgctg ctccaggcagg gccttaacag cccagagaaat ttcagccctc gcctcttaag
480
gttgataaag aaaccaacac ggaagatctc tttctggaag aagcagccag cctcgtgaag
540
gagcgcccca gccgcggggc ccgaggggtcg ccttttgttc ggagtggcac gattgtccgt
600
tcccagacat tctgcgcctgg agcacgaagc cagtatgttt gcagacttta tcgtagtgac
660

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agcgacagtt caacgctgcc ccggaagtcc ccccttgctcc gaaatacttt ggaaagacga
 720
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 780
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 840
 ctctgcgcc tccgtgagct gcggcagcgg ttggaggacg cccagctccg tggccagact
 900
 gacctccac cctgggtgct tcgggacgag cggtccgtg gcttgctgag ggaggccgag
 960
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 1020
 aagaaggcct ccaaggagat ctaccagctg cgtgggcaga gccacaaaga gcccatccaa
 1080
 gtgcagacct ttagggagaa gatagcattc ttcacaaggc caaggatcaa catacctect
 1140
 cccccgcg acgacgtctg atggagtga ttgtgcacat gaagtattta tccacctgtt
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 1260
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 1276

<210> 4654

<211> 255

<212> PRT

<213> Homo sapiens

<400> 4654

Met Gly Ile Asp Ser Ile Leu Gly His Pro Phe Ala Ala Gln Ala Gly
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 Pro Tyr Ser Pro Glu Lys Phe Gln Pro Ser Pro Leu Lys Val Asp Lys
 20 25 30
 Glu Thr Asn Thr Glu Asp Leu Phe Leu Glu Glu Ala Ala Ser Leu Val
 35 40 45
 Lys Glu Arg Pro Ser Arg Arg Ala Arg Gly Ser Pro Phe Val Arg Ser
 50 55 60
 Gly Thr Ile Val Arg Ser Gln Thr Phe Ser Pro Gly Ala Arg Ser Gln
 65 70 75 80
 Tyr Val Cys Arg Leu Tyr Arg Ser Asp Ser Asp Ser Ser Thr Leu Pro
 85 90 95
 Arg Lys Ser Pro Phe Val Arg Asn Thr Leu Glu Arg Arg Thr Leu Arg
 100 105 110
 Tyr Lys Gln Ser Cys Arg Ser Ser Leu Ala Glu Leu Met Ala Arg Thr
 115 120 125
 Ser Leu Asp Leu Glu Leu Asp Leu Gln Ala Ser Arg Thr Arg Gln Arg
 130 135 140
 Gln Leu Asn Glu Glu Leu Cys Ala Leu Arg Glu Leu Arg Gln Arg Leu
 145 150 155 160
 Glu Asp Ala Gln Leu Arg Gly Gln Thr Asp Leu Pro Pro Trp Val Leu
 165 170 175
 Arg Asp Glu Arg Leu Arg Gly Leu Leu Arg Glu Ala Glu Arg Gln Thr
 180 185 190
 Arg Gln Thr Lys Leu Asp Tyr Arg His Glu Gln Ala Ala Glu Lys Met


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                195                200                205
Leu Lys Lys Ala Ser Lys Glu Ile Tyr Gln Leu Arg Gly Gln Ser His
  210                215                220
Lys Glu Pro Ile Gln Val Gln Thr Phe Arg Glu Lys Ile Ala Phe Phe
  225                230                235                240
Thr Arg Pro Arg Ile Asn Ile Pro Pro Leu Pro Ala Asp Asp Val
                245                250                255

<210> 4655
<211> 456
<212> DNA
<213> Homo sapiens

<400> 4655
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120
cgccacgggg tccgcgcgcgc cgcgcgcgcgc cgcctttagc ttctggaaga tgaagtagag
180
cttgatctcc agcacagaaga tgtaaaggaa ccacaggatc atggcgtagc cgcgcttggc
240
cgtgcgcacc tcggcgccca cccacacggc cagctagcgc agcaccagca ggaagcacac
300
gtcgcgccacc agcacgatga tgcacacgcc gatcttgcgc gggccctggt tctgctccac
360
caggtacgcg tccatgacgg ccattgctgcc catgatcacc agcgtggtca ggcacacgtg
420
gcgcgggtcc ggggcgggca gcaccatggt cggccg
456

<210> 4656
<211> 152
<212> PRT
<213> Homo sapiens

<400> 4656
Ala Ala Ala Gln Val Leu Ala Leu Ala Glu Gly Ala His Val Leu His
  1                5                10                15
Ala Val Gln Arg His Glu Gln Gln Glu Gln Ala Gly His Thr His Arg
  20                25                30
Gln Gln Gln Arg Gln Arg Leu Ala Arg His Gly Val Arg Arg Ala Ala
  35                40                45
Pro Arg Arg Leu Val Val Leu Glu Asp Glu Val Glu Leu Asp Leu Gln
  50                55                60
His Glu Asp Val Lys Glu Pro Gln Asp His Gly Val Ala Ala Leu Gly
  65                70                75                80
Arg Ala His Leu Gly Ala His Pro His Gly His Val Ala Gln His Gln
  85                90                95
Gln Glu Ala His Val Ala His Gln His Asp Asp Ala His Ala Asp Leu
  100                105                110
Ala Arg Ala Leu Val Leu Leu His Gln Val Arg Val His Asp Gly His
  115                120                125
Ala Ala His Asp His Gln Arg Gly Gln Ala His Val Ala Pro Val Arg

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130
Gly Arg Gln His His Gly Arg Pro
145 150

140

<210> 4657
<211> 723
<212> DNA
<213> Homo sapiens

<400> 4657
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aaccagctgc accgcaagtc tgtcaagaag gggtttgact tcacgctaataa ggtggcaggg
120
gagtcaggcc tagggaaatc caccctcatc aacagcctct tcctcaccaa cctctatgag
180
gatcgccagg tggcagaggc cagtgtctgc ttgacacaga ccttggccat tgagcgccgg
240
ggcgtagaga ttgaggaagg ggggtgtgaaa gtgaagctga cccttggga cacacctggc
300
tttggggact cagtggactg ctctgactgc tggcttccgg tggtgaaatt catcaggagg
360
caatttgagc agtaccttag ggatgagagt ggctgaacc ggaagaacat ccaggactcc
420
cgagtcaccat gctgctctca ctctcatctca ccttctggcc gggctccggc ccctagatgt
480
ggcttctctc gggcaataca cgagaaagtc aacatcatcc cagtcattgg caaagcggtat
540
gacctgatgc ccaggaaac ccaggccctc aagcagaaga tccgggatca gttgaaggaa
600
gaggagatcc acatctacca gttccccgaa tgtgactctg atgaagatga agacttcaag
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720
gta
723

<210> 4658
<211> 233
<212> PRT
<213> Homo sapiens

<400> 4658
Met Asp Lys Glu Tyr Val Gly Phe Ala Ala Leu Pro Asn Gln Leu His
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Arg Lys Ser Val Lys Lys Gly Phe Asp Phe Thr Leu Met Val Ala Gly
20 25 30
Glu Ser Gly Leu Gly Lys Ser Thr Leu Ile Asn Ser Leu Phe Leu Thr
35 40 45
Asn Leu Tyr Glu Asp Arg Gln Val Pro Glu Ala Ser Ala Arg Leu Thr
50 55 60
Gln Thr Leu Ala Ile Glu Arg Arg Gly Val Glu Ile Glu Glu Gly Gly
65 70 75 80
Val Lys Val Lys Leu Thr Leu Val Asp Thr Pro Gly Phe Gly Asp Ser

	85		90		95
Val	Asp	Cys	Ser	Asp	Cys
	100		105		110
Gln	Phe	Glu	Gln	Tyr	Leu
	115		120		125
Ile	Gln	Asp	Ser	Arg	Val
	130		135		140
Gly	Arg	Ala	Pro	Ala	Pro
	145		150		155
Lys	Val	Asn	Ile	Ile	Pro
	165		170		175
Gln	Glu	Thr	Gln	Ala	Leu
	180		185		190
Glu	Glu	Ile	His	Ile	Tyr
	195		200		205
Glu	Asp	Phe	Lys	Arg	Gln
	210		215		220
Ala	Val	Val	Gly	Ser	Cys
	225		230		

<210> 4659

<211> 864

<212> DNA

<213> Homo sapiens

<400> 4659

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120
ggcgccgggtg gtctgtgtga cccaacctgg agtcgggtccc ggtccggccc ccagaaactc
180
caactggcag acaggcatgt gtgactgttt cagcgactgc ggagtctgtc tctgtggcac
240
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360
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420
agatatcaac agaaggagag ccatgcgtac ttctataaaa ctgatgggtg aaagctctta
480
ccgaagcaac aaaattcagc agacacctct tcagcttgag ttcttcacca tcttttgcaa
540
ctgaaatatg atggatatgc ttaagtacaa ctgatggcat gaaaaaactc aaatttttga
600
tttattataa atgaatgttg tccctgaact tagctaaatg gtgcaactta gttctcctt
660
gctttcatal tatogaattc gaatttcctg gcttataaac tttttaaatt acatttgaaa
720
tataaaccaa atgaatatatt ttaactgataa gattcttcat gcttcttttg tctccttaaa
780
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840

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864

<210> 4660
<211> 192
<212> PRT
<213> Homo sapiens

<400> 4660
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20 25 30
Ser Val Arg Ala Phe His His Gln Phe Leu Glu Ser Thr His Gly Ser
35 40 45
Pro Ser Val Asp Ile Ser Leu Asp Leu Ala Lys Ser Thr Met Arg Thr
50 55 60
Ala Lys Ser Cys His Ile Val Ile Thr Asn Arg Ser Arg Asp Ala Ile
65 70 75 80
Ser Gly Pro Val Glu Ser Pro His Cys Asp Ala Cys Ser Thr Gln Thr
85 90 95
Ala Phe Ile His Ile Ser Cys Asn Leu Thr Pro Lys Ala Arg Glu Thr
100 105 110
Lys Cys Ala Thr Glu Thr Asp Ser Ala Val Ala Glu Thr Val Thr His
115 120 125
Ala Cys Leu Pro Val Gly Val Leu Gly Gly Arg Thr Gly Thr Asp Ser
130 135 140
Arg Leu Gly His Asn Asp His Arg Arg Leu Ser Leu His Phe Gln Cys
145 150 155 160
Arg Ala Phe His Val Val Phe Ile Cys Gly Glu Ile Leu Ser Gln Ala
165 170 175
Thr Arg His Phe Leu Leu Gly Thr Leu Phe Thr Asn Phe His Cys Phe
180 185 190

<210> 4661
<211> 153
<212> DNA
<213> Homo sapiens

<400> 4661
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aaacacagcc atgaacagag tgaccgggga gaaggggtgg aggtcgtcca gaatgagccc
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tttgaggacc ctcacatgg ccatgggagc ttc
153

<210> 4662
<211> 51
<212> PRT
<213> Homo sapiens

<400> 4662
Arg Ile Cys Met Pro Leu Thr Val Asp Glu Tyr Lys Ile Gly Gln Leu

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Tyr Met Ile Ser Lys His Ser His Glu Gln Ser Asp Arg Gly Glu Gly
      20           25           30
Val Glu Val Val Gln Asn Glu Pro Phe Glu Asp Pro His His Gly His
      35           40           45
Gly Gln Phe
      50

<210> 4663
<211> 1550
<212> DNA
<213> Homo sapiens

<400> 4663
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gatgaggatga tcctgaagga cctggagggtg ctggcagaaa tcgcttcttc ccccgaggcg
120
cagacggatg acccaggccc cctcgatggc cctgacctcc aggccagcca ctcagagctc
180
cagggtcccca ccctggcgag agcgggccta ctgaacacct ctggtaccaa aggccttagaa
240
tgttctcctt caactcccac catgaattct tacttttata agttcatgat caacctcttc
300
aagagattca gcagcgaacg gaagctcctg gaggtcagag gccctttcat catcaggcag
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420
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480
tccacagagc tcttccagct aaggaaccag ctgaaggacc tgaagacct ggagagccag
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720
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780
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840
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900
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960
gagaagggtcc agaacaagca cctggaagtg cggcaccagc ggagcggggc tggggaccac
1020
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1080
catgaaacac taagggtcgt cacgccctcc cgaggagctc aaggacctgc ctgtcaggac
1140
cagggtctggg cctgccaaac cagggcagtg ttggggccgg aggcgtgctg gtctgcccac
1200

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gctcctctca gaggccagtc cccaggccctc cagcgctgtc agctgcaccc tggcattctc
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 1320
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 1380
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 1440
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 1550

<210> 4664

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4664

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		20						25					30		
Glu	Ile	Ala	Ser	Ser	Pro	Ala	Gly	Gln	Thr	Asp	Asp	Pro	Gly	Pro	Leu
		35					40					45			
Asp	Gly	Pro	Asp	Leu	Gln	Ala	Ser	His	Ser	Glu	Leu	Gln	Val	Pro	Thr
	50				55					60					
Pro	Gly	Arg	Ala	Gly	Leu	Leu	Asn	Thr	Ser	Gly	Thr	Lys	Gly	Leu	Glu
65				70						75				80	
Cys	Ser	Pro	Ser	Thr	Pro	Thr	Met	Asn	Ser	Tyr	Phe	Tyr	Lys	Phe	Met
				85				90					95		
Ile	Asn	Leu	Leu	Lys	Arg	Phe	Ser	Ser	Glu	Arg	Lys	Leu	Leu	Glu	Val
				100				105					110		
Arg	Gly	Pro	Phe	Ile	Ile	Arg	Gln	Leu	Cys	Leu	Leu	Leu	Asn	Ala	Glu
				115			120					125			
Asn	Ile	Phe	His	Ser	Met	Ala	Asp	Ile	Leu	Leu	Arg	Glu	Glu	Asp	Leu
	130				135						140				
Lys	Phe	Ala	Ser	Thr	Met	Val	His	Ala	Leu	Asn	Thr	Ile	Leu	Leu	Thr
145				150					155					160	
Ser	Thr	Glu	Leu	Phe	Gln	Leu	Arg	Asn	Gln	Leu	Lys	Asp	Leu	Lys	Thr
				165					170					175	
Leu	Glu	Ser	Gln	Asn	Leu	Phe	Cys	Cys	Leu	Tyr	Arg	Ser	Trp	Cys	His
		180					185						190		
Asn	Pro	Val	Thr	Thr	Val	Ser	Leu	Cys	Phe	Leu	Thr	Gln	Asn	Tyr	Arg
		195					200						205		
His	Ala	Tyr	Asp	Leu	Ile	Gln	Lys	Phe	Gly	Asp	Leu	Glu	Val	Thr	Val
	210				215					220					
Asp	Phe	Leu	Ala	Glu	Val	Asp	Lys	Leu	Val	Gln	Leu	Ile	Glu	Cys	Pro
225				230						235				240	
Ile	Phe	Thr	Tyr	Leu	Arg	Leu	Gln	Leu	Leu	Asp	Val	Lys	Asn	Asn	Pro
				245					250					255	
Tyr	Leu	Ile	Lys	Ala	Leu	Tyr	Gly	Leu	Leu	Met	Leu	Leu	Pro	Gln	Ser
		260					265						270		
Ser	Ala	Phe	Gln	Leu	Leu	Ser	His	Arg	Leu	Gln	Cys	Val	Pro	Asn	Pro

	275		280		285
Glu	Leu	Leu	Gln	Thr	Glu
	290		295		300
Lys	Ala	Asp	Ser	Pro	Ser
305			310		315
Glu	Lys	Val	Gln	Asn	Lys
			325		330
Arg	Gly	Asp	His	Leu	Asp
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<210> 4665

<211> 1043

<212> DNA

<213> Homo sapiens

<400> 4665

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<210> 4666

<211> 167

<212> PRT

<213> Homo sapiens

<400> 4666

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Gly Ile Thr Arg Arg Val Phe Met Trp Thr Val Ser Gly Thr Pro Cys
      20           25           30
Arg Glu Phe Trp Ser Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val
      35           40           45
Glu Thr Val Glu Glu Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu
      50           55           60
Arg Ser Arg Ala Tyr Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu
65           70           75           80
Ser Tyr Val Lys Glu Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln
      85           90           95
Asp Ile Ser Leu Glu Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His
      100          105          110
Leu Ala Asp Asp Leu Gly His Val Val Pro Asn Ser Arg Leu His Gln
      115          120          125
Met Cys Arg Val Arg Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln
      130          135          140
Asp Arg Ser Lys Phe Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn
145          150          155          160
Leu Lys Ile Thr Trp Ser Tyr
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<210> 4667

<211> 1031

<212> DNA

<213> Homo sapiens

<400> 4667

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 780
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 1020
 aaaaaaaaaa a
 1031

<210> 4668

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4668

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 20 25 30
 Ala Gln Lys Ala Arg Trp Leu Ile Pro Leu Leu Glu Gly Lys Ala Arg
 35 40 45
 Ser Cys Phe Ala Met Thr Glu Pro Gln Val Ala Ser Ser Asp Ala Thr
 50 55 60
 Asn Ile Glu Ala Ser Ile Arg Glu Glu Asp Ser Phe Tyr Val Ile Asn
 65 70 75 80
 Gly His Lys Trp Trp Ile Thr Gly Ile Leu Asp Pro Arg Cys Gln Leu
 85 90 95
 Cys Val Phe Met Gly Lys Thr Asp Pro His Ala Pro Arg His Arg Gln
 100 105 110
 Gln Ser Val Leu Leu Val Pro Met Asp Thr Pro Gly Ile Lys Ile Ile
 115 120 125
 Arg Pro Leu Thr Val Tyr Gly Leu Glu Asp Ala Pro Gly Gly His Gly
 130 135 140
 Glu Val Arg Phe Glu His Val Arg Val Pro Lys Glu Asn Met Val Leu
 145 150 155 160
 Gly Pro Gly Arg Gly Phe Glu Ile Ala Gln Gly Arg Leu Gly Pro Gly
 165 170 175
 Arg Ile His His Cys Met Arg Leu Ile Gly Phe Ser Glu Arg Ala Leu
 180 185 190
 Ala Leu Met Lys Ala Arg Val Ser Ala Phe Pro Arg Thr Gln His
 195 200 205

<210> 4669

<211> 683

<212> DNA

<213> Homo sapiens

<400> 4669
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<210> 4670

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4670

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Asn	Lys	Lys	Lys	Gln	Lys	Val	Phe	Gln	His	Asn	Glu	Leu	Lys	Lys	Glu
				20				25					30		
Thr	Cys	Val	Gln	Ala	Gly	Phe	Gln	Asp	Met	Asn	Ile	Lys	Lys	Gln	Ile
				35			40					45			
Gln	Glu	Gln	His	Gln	Ala	Ala	Ile	Ile	Ile	Gln	Lys	His	Cys	Lys	Ala
				50			55				60				
Phe	Lys	Ile	Arg	Lys	His	Tyr	Leu	His	Ile	Arg	Ala	Thr	Val	Val	Ser
65					70				75					80	
Ile	Gln	Arg	Arg	Tyr	Arg	Lys	Leu	Thr	Ala	Val	Arg	Thr	Gln	Ala	Val
				85				90					95		
Ile	Cys	Ile	Gln	Ser	Tyr	Tyr	Arg	Gly	Phe	Lys	Val	Arg	Lys	Asp	Ile
				100				105					110		
Gln	Asn	Met	His	Arg	Ala	Ala	Thr	Leu	Ile	Gln	Ser	Phe	Tyr	Arg	Met
				115			120					125			
His	Arg	Ala	Lys	Val	Asp	Tyr									
				130			135								

<210> 4671

<211> 657

<212> DNA

<213> Homo sapiens

<400> 4671

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 180
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 240
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<210> 4672

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4672

Ala	Arg	Leu	Leu	Gln	Trp	Phe	Gln	His	Leu	Ser	Ala	Gly	Ile	His	Gly
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			20						25				30		
Lys	Leu	Met	Leu	Asp	His	Met	Thr	Asn	Thr	Thr	Asn	Ala	Ser	His	Val
			35					40				45			
Pro	Val	Gln	Pro	Gly	Ser	Ser	Val	Val	Met	Met	Val	Asn	Asn	Leu	Gly
			50				55				60				
Gly	Leu	Ser	Phe	Leu	Glu	Leu	Gly	Ile	Ile	Ala	Asp	Ala	Thr	Val	Arg
65					70					75				80	
Ser	Leu	Glu	Gly	Arg	Gly	Val	Lys	Ile	Ala	Arg	Ala	Leu	Val	Gly	Thr
				85					90					95	
Phe	Met	Ser	Ala	Leu	Glu	Met	Pro	Gly	Ile	Ser	Leu	Thr	Leu	Leu	Leu
			100					105					110		
Val	Asp	Glu	Pro	Leu	Leu	Lys	Leu	Ile	Asp	Ala	Glu	Thr	Thr	Ala	Ala
			115				120					125			
Ala	Trp	Pro	Arg	Ser	Gly	Trp	Arg	Trp	Cys	Trp	Asn	Gly	Cys	Ala	Ala
			130				135					140			
Leu	Ser	Trp	Ala	Trp	Arg	Asn	Thr								
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<210> 4673
<211> 1335
<212> DNA
<213> Homo sapiens

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<210> 4674

<211> 402

<212> PRT

<213> Homo sapiens

<400> 4674

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 20          25          30
Ala Asn Ser Leu Ala Ser Ser Gly Pro His Asn Leu Thr Tyr Pro Leu
 35          40          45
Gly Pro Arg Asn Glu Asp Leu Ser Leu Asp Tyr Ala Ser Gln Pro Ala
 50          55          60
Asn Leu Gln Phe Pro His Ile Met Pro Leu Ala Glu Asp Ile Lys Gly
 65          70          75          80
Ser Cys Phe Gln Ser Gly Asn Lys Arg Asn His Glu Pro Phe Ile Ala
 85          90          95
Pro Glu Arg Phe Gly Asn Ser Ser Val Gly Phe Gly Ser Asn Ser His
100          105          110
Ser Gln Ala Pro Glu Lys Val Thr Leu Leu Val Asp Gly Thr Arg Phe
115          120          125
Val Val Asn Pro Gln Ile Phe Thr Ala His Pro Asp Thr Met Leu Gly
130          135          140
Arg Met Phe Gly Pro Gly Arg Glu Tyr Asn Phe Thr Arg Pro Asn Glu
145          150          155          160
Lys Gly Glu Tyr Glu Ile Ala Glu Gly Ile Ser Ala Thr Val Phe Arg
165          170          175
Thr Val Leu Asp Tyr Tyr Lys Thr Gly Ile Ile Asn Cys Pro Asp Gly
180          185          190
Ile Ser Ile Pro Asp Leu Arg Asp Thr Cys Asp Tyr Leu Cys Ile Asn
195          200          205
Phe Asp Phe Asn Thr Ile Arg Cys Gln Asp Leu Ser Ala Leu Leu His
210          215          220
Glu Leu Ser Asn Asp Gly Ala His Lys Gln Phe Asp His Tyr Leu Glu
225          230          235          240
Glu Leu Ile Leu Pro Ile Met Val Gly Cys Ala Lys Lys Gly Glu Arg
245          250          255
Glu Cys His Ile Val Val Leu Thr Asp Glu Asp Ser Val Asp Trp Asp
260          265          270
Glu Asp His Pro Pro Pro Met Gly Glu Glu Tyr Ser Gln Ile Leu Tyr
275          280          285
Ser Ser Lys Leu Tyr Arg Phe Phe Lys Tyr Ile Glu Asn Arg Asp Val
290          295          300
Ala Lys Thr Val Leu Lys Glu Arg Gly Leu Lys Asn Ile Arg Ile Gly
305          310          315          320
Ile Glu Gly Tyr Pro Thr Cys Lys Glu Lys Ile Lys Arg Arg Pro Gly
325          330          335
Gly Arg Ser Glu Val Ile Tyr Asn Tyr Val Gln Arg Pro Phe Ile Gln
340          345          350
Met Ser Trp Glu Lys Glu Glu Gly Lys Ser Arg His Val Asp Phe Gln
355          360          365
Cys Val Arg Ser Lys Ser Leu Thr Asn Leu Val Ala Ala Gly Asp Asp
370          375          380
Val Leu Glu Asp Gln Glu Ile Leu Met His His Pro Pro Gln Val Asp

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385

Glu Leu

390

395

400

<210> 4675

<211> 2868

<212> DNA

<213> Homo sapiens

<400> 4675

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<210> 4676

<211> 641

<212> PRT

<213> Homo sapiens

<400> 4676

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 35 40 45
 Asn Ser Phe Cys Ser Asp Asp Thr Gly Cys Pro Ser Ser Gln Ser Val
 50 55 60
 Ser Pro Val Lys Thr Pro Ser Asp Ala Gly Asn Ser Pro Ile Gly Phe
 65 70 75 80
 Cys Pro Gly Ser Asp Glu Gly Phe Thr Arg Lys Lys Cys Thr Ile Gly
 85 90 95
 Met Val Gly Glu Gly Ser Ile Gln Ser Ser Arg Tyr Lys Lys Glu Ser
 100 105 110
 Lys Ser Gly Leu Val Lys Pro Gly Ser Glu Ala Asp Phe Ser Ser Ser
 115 120 125
 Ser Ser Thr Gly Ser Ile Ser Ala Pro Glu Val His Met Ser Thr Ala
 130 135 140
 Gly Ser Lys Arg Ser Ser Ser Arg Asn Arg Gly Pro His Gly Arg
 145 150 155 160
 Ser Asn Gly Ala Ser Ser His Lys Pro Gly Ser Ser Ser Ser Pro
 165 170 175
 Arg Glu Lys Asp Leu Leu Ser Met Leu Cys Arg Asn Gln Leu Ser Pro
 180 185 190
 Val Asn Ile His Pro Ser Tyr Ala Pro Ser Ser Pro Ser Ser Asn
 195 200 205
 Ser Gly Ser Tyr Lys Gly Ser Asp Cys Ser Pro Ile Met Arg Arg Ser
 210 215 220
 Gly Arg Tyr Met Ser Cys Gly Glu Asn His Gly Val Arg Pro Pro Asn
 225 230 235 240
 Pro Glu Gln Tyr Leu Thr Pro Leu Gln Gln Lys Glu Val Thr Val Arg
 245 250 255
 His Leu Lys Thr Lys Leu Lys Glu Ser Glu Arg Arg Leu His Glu Arg
 260 265 270
 Glu Ser Glu Ile Val Glu Leu Lys Ser Gln Leu Ala Arg Met Arg Glu
 275 280 285
 Asp Trp Ile Glu Glu Glu Cys His Arg Val Glu Ala Gln Leu Ala Leu
 290 295 300
 Lys Glu Ala Arg Lys Glu Ile Lys Gln Leu Lys Gln Val Ile Glu Thr
 305 310 315 320
 Met Arg Ser Ser Leu Ala Asp Lys Asp Lys Gly Ile Gln Lys Tyr Phe
 325 330 335
 Val Asp Ile Asn Ile Gln Asn Lys Lys Leu Glu Ser Leu Leu Gln Ser
 340 345 350
 Met Glu Met Ala His Ser Gly Ser Leu Arg Asp Glu Leu Cys Leu Asp
 355 360 365
 Phe Pro Cys Asp Ser Pro Glu Lys Ser Leu Thr Leu Asn Pro Pro Leu
 370 375 380
 Asp Thr Met Ala Asp Gly Leu Ser Leu Glu Glu Gln Val Thr Gly Glu


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385          390          395          400
Gly Ala Asp Arg Glu Leu Leu Val Gly Asp Ser Ile Ala Asn Ser Thr
          405          410          415
Asp Leu Phe Asp Glu Ile Val Thr Ala Thr Thr Thr Glu Ser Gly Asp
          420          425          430
Leu Glu Leu Val His Ser Thr Pro Gly Ala Asn Val Leu Glu Leu Leu
          435          440          445
Pro Ile Val Met Gly Gln Glu Glu Gly Ser Val Val Val Glu Arg Ala
          450          455          460
Val Gln Thr Asp Val Val Pro Tyr Ser Pro Ala Ile Ser Glu Leu Ile
          465          470          475          480
Gln Ser Val Leu Gln Lys Leu Gln Asp Pro Cys Pro Ser Ser Leu Ala
          485          490          495
Ser Pro Asp Glu Ser Glu Pro Asp Ser Met Glu Ser Phe Pro Glu Ser
          500          505          510
Leu Ser Ala Leu Val Val Asp Leu Thr Pro Arg Asn Pro Asn Ser Ala
          515          520          525
Ile Leu Leu Ser Pro Val Glu Thr Pro Tyr Xaa Gln Cys Gly Cys Arg
          530          535          540
Ser Ser Cys Lys Pro Pro His Glu Arg Ala Gly Xaa Phe Ala Ala Cys
          545          550          555          560
Val Glu Glu Arg Leu Asp Gly Val Ile Pro Leu Ala Arg Gly Gly Val
          565          570          575
Val Arg Gln Tyr Trp Ser Ser Ser Phe Leu Val Asp Leu Leu Ala Val
          580          585          590
Ala Ala Pro Val Val Pro Thr Val Leu Trp Ala Phe Ser Thr Gln Arg
          595          600          605
Gly Gly Thr Asp Pro Val Tyr Asn Ile Gly Ala Leu Leu Arg Gly Cys
          610          615          620
Cys Val Val Ala Leu His Ser Leu Arg Arg Thr Ala Phe Arg Ile Lys
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<210> 4677

<211> 940

<212> DNA

<213> Homo sapiens

<400> 4677

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<210> 4678

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4678

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			20					25					30		
Arg	Thr	Val	Phe	Ile	Trp	Phe	Val	Gly	Gln	Leu	Leu	Gly	Gly	Glu	Leu
		35				40					45				
Lys	Gly	Tyr	Ser	Lys	Thr	Asn	Thr	Thr	Ser	Ser	Arg	Pro	Ala	Ser	Ser
	50				55						60				
Arg	Gly	Ser	Leu	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Leu	Thr	Lys
	65				70				75					80	
Asp	Ala	Leu	Pro	Ser	Ser	Leu	Lys	Ser	Asp	Ser	Thr	Thr	Ile	Thr	Ser
			85					90					95		
Gly	Leu	Val	Phe	Pro	Phe	Arg	Ser	Leu	Cys	Val	Asn	Pro	Ala	Lys	Ser
		100						105					110		
Ser	Val	Ser	Glu	Ser	Val	Ser	Ser	Ile	Lys	Ile	Leu	Leu	Ser	Ser	Ser
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<210> 4679

<211> 2284

<212> DNA

<213> Homo sapiens

<400> 4679

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 2284

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<211> 112

<212> PRT

<213> Homo sapiens

<400> 4680

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Thr	Ser	Phe	His	Arg	Gly	Thr	Cys	Leu	Glu	Phe	Trp	His	Arg	Gly	Leu
			20					25					30		
Thr	Glu	His	Ser	Ser	Asp	Ile	Phe	Leu	Gln	Leu	Glu	Met	Leu	Cys	Trp
		35				40					45				
Ser	Pro	Cys	Ser	Leu	Thr	Phe	Ser	Arg	Ala	Ile	Lys	Ala	Thr	Ser	Ser
	50					55				60					
Ile	Ala	Gly	Pro	Gln	Thr	Phe	Gln	Gly	Lys	His	Cys	Phe	Thr	Ser	Cys
65				70				75					80		
Arg	Gln	Leu	Ile	Ser	Gln	Lys	Pro	Leu	Gln	Lys	Pro	Val	Leu	Pro	Gly
			85					90					95		
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<210> 4681

<211> 906

<212> DNA

<213> Homo sapiens

<400> 4681

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 780
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<210> 4682

<211> 153

<212> PRT

<213> Homo sapiens

<400> 4682

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			20				25						30		
Phe	Leu	Phe	His	Gln	Thr	Thr	Arg	Gln	Lys	Asn	Leu	Ser	Phe	Leu	Pro
			35				40					45			
Pro	Phe	Ser	Phe	Phe	Pro	Ser	Cys	Thr	His	Leu	Glu	Asn	Phe	Thr	Phe
			50				55					60			
Leu	Glu	Ser	Pro	Gln	Asn	Asn	Thr	Lys	Val	Ile	Val	Gly	Ala	Thr	Gly
65				70						75				80	
Phe	Met	Leu	Tyr	Cys	Gly	Ala	Arg	Gly	Lys	Thr	Cys	Leu	Tyr	Ala	Gly
			85						90					95	
Asn	Thr	His	Asn	His	Ser	Phe	Arg	Phe	Val	Cys	Leu	Met	Val	Ile	Cys
			100				105						110		
His	Lys	Arg	Asp	Leu	Gln	Lys	Gln	Gly	Ala	Leu	Val	Asn	Val	Gln	Tyr
			115				120					125			
Leu	Asp	Phe	Cys	Val	Leu	Arg	Thr	Gln	Lys	Gly	Ala	Thr	Leu	Leu	Phe
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<210> 4683
 <211> 3246
 <212> DNA
 <213> Homo sapiens

<400> 4683
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 3246

<210> 4684

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4684

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 35 40 45
 Gln Thr His Gly Thr Ala Arg Ile Gly Thr His Asn Gly Thr Phe His
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 65 70 75 80
 Arg Asp Ala Glu Ile Val Arg Thr Arg Asp Pro Glu Lys Leu Ala Ser
 85 90 95
 Cys Asp Ile Val Val Asp Val Gly Gly Glu Tyr Asp Pro Arg Arg His
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 Arg Tyr Asp His His Gln Arg Ser Phe Thr Glu Thr Met Ser Ser Leu
 115 120 125
 Ser Pro Gly Lys Pro Trp Gln Thr Lys Leu Ser Ser Ala Gly Leu Ile
 130 135 140
 Tyr Leu His Phe Gly His Lys Leu Leu Ala Gln Leu Leu Gly Thr Ser
 145 150 155 160
 Glu Glu Asp Ser Met Val Gly Thr Leu Tyr Asp Lys Met Tyr Glu Asn
 165 170 175
 Phe Val Glu Glu Val Asp Ala Val Asp Asn Gly Ile Ser Gln Trp Ala
 180 185 190
 Glu Gly Glu Pro Arg Tyr Ala Leu Thr Thr Thr Leu Ser Ala Arg Val
 195 200 205
 Ala Arg Leu Asn Pro Thr Trp Asn His Pro Asp Gln Asp Thr Glu Ala
 210 215 220
 Gly Phe Lys Arg Ala Met Asp Leu Val Gln Glu Glu Phe Leu Gln Arg
 225 230 235 240
 Leu Asp Phe Tyr Gln His Ser Trp Leu Pro Ala Arg Ala Leu Val Glu
 245 250 255
 Glu Ala Leu Ala Gln Arg Phe Gln Val Asp Pro Ser Gly Glu Ile Val
 260 265 270
 Glu Leu Ala Lys Gly Ala Cys Pro Trp Lys Glu His Leu Tyr His Leu
 275 280 285
 Glu Ser Gly Leu Ser Pro Pro Val Ala Ile Phe Phe Val Ile Tyr Thr
 290 295 300
 Asp Gln Ala Gly Gln Trp Arg Ile Gln Cys Val Pro Lys Glu Pro His


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305              310              315              320
Ser Phe Gln Ser Arg Leu Pro Leu Pro Glu Pro Trp Arg Gly Leu Arg
              325              330              335
Asp Glu Ala Leu Asp Gln Val Ser Gly Ile Pro Gly Cys Ile Phe Val
              340              345              350
His Ala Ser Gly Phe Ile Gly Gly His Arg Thr Arg Glu Gly Ala Leu
              355              360              365
Ser Met Ala Arg Ala Thr Leu Ala Gln Arg Ser Tyr Leu Pro Gln Ile
              370              375              380
Ser
385

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<210> 4685
 <211> 618
 <212> DNA
 <213> Homo sapiens

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618

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<210> 4686
 <211> 106
 <212> PRT
 <213> Homo sapiens

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<400> 4686
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20      25      30
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35      40      45
Leu Ser Pro Glu Glu Val Gln Lys Asn Tyr Glu His Leu Phe Lys Val

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      50              55              60
Asn Asp Lys Ser Val Gly Gly Ser Phe Tyr Leu Gln Ser Lys Val Val
65              70              75              80
Arg Ala Lys Glu Arg Leu Asp Glu Glu Leu Lys Ile Gln Ala Gln Glu
      85              90              95
Asp Arg Glu Lys Gly Gln Met Pro His Thr
      100              105

<210> 4687
<211> 309
<212> DNA
<213> Homo sapiens

<400> 4687
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180
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<210> 4688
<211> 90
<212> PRT
<213> Homo sapiens

<400> 4688
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Ala Leu Pro Val Ser Tyr Ala Leu Asn His Val Ser Ala Leu Ser His
20      25      30
Pro Leu Trp Val Ala Leu Met Ser Ala Leu Ile Leu Gly Leu Leu Phe
35      40      45
Val Ala Val Tyr Ser Leu Ser His Gly Glu Val Ser Tyr Asp Pro Leu
50      55      60
Tyr Ala Gly Phe Ala Val Phe Ala Phe Thr Ser Gly Gly Asp Leu Ile
65      70      75      80
Ile Ala Leu Gln Glu Asp Ser Tyr Gly Gly
      85      90

<210> 4689
<211> 898
<212> DNA
<213> Homo sapiens

<400> 4689
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<210> 4690

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4690

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			20					25					30		
Ser	Ala	Pro	Glu	Asp	Leu	Met	Phe	Leu	Leu	Asp	Ser	Ser	Ala	Ser	Val
			35				40					45			
Ser	His	Tyr	Glu	Phe	Ser	Arg	Val	Arg	Glu	Phe	Val	Gly	Gln	Leu	Val
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Ala	Pro	Leu	Pro	Leu	Ala	Pro	Xaa	Ala	Leu	Arg	Ala	Ser	Leu	Val	His
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Val	Gly	Ser	Arg	Pro	Tyr	Thr	Glu	Phe	Pro	Phe	Gly	Gln	His	Ser	Ser
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Gly	Glu	Ala	Ala	Gln	Asp	Ala	Val	Arg	Ala	Ser	Ala	Gln	Arg	Met	Gly
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Asp	Thr	His	Thr	Gly	Leu	Ala	Leu	Val	Tyr	Ala	Lys	Glu	Gln	Leu	Phe
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Ala	Glu	Ala	Ser	Gly	Ala	Arg	Pro	Gly	Val	Pro	Lys	Val	Leu	Val	Trp
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Asn Phe Leu Glu Leu Ser Ala Ala Ala Ser Ala Pro Ala Glu Lys His
             180             185             190
Leu His Phe Val Asp Val Asp Asp Leu His Ile Ile Val Gln Glu Leu
             195             200             205
Arg Gly Ser Ile Leu Asp Ala Met Arg Pro Gln Gln Leu His Ala Thr
             210             215             220
Glu Ile Thr Ser Ser Gly Phe Arg Leu Ala Trp Pro Pro Leu Leu Thr
             225             230             235             240
Ala Asp Ser Gly Tyr Tyr Val Leu Glu Leu Val Pro Ser Ala Gln Pro
             245             250             255
Gly Ala Ala Arg Arg Gln Gln Leu Pro Gly Asn Ala Thr Asp Trp Ile
             260             265             270
Trp Ala Gly Leu Asp Pro Asp Thr Asp Tyr Asp Val Ala Leu Val Pro
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Glu Ser Asn Val Arg Leu Leu Arg Pro Gln Ile
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<210> 4691

<211> 2375

<212> DNA

<213> Homo sapiens

<400> 4691

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840

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<210> 4692

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4692

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Phe Leu Phe His Ala Ile Asn Lys Pro Asn Ala Pro Ile Trp Leu Ile
 35          40          45
Leu Asn Glu Ala Gly Leu Tyr Trp Arg Ala Val Gly Asn Ser Thr Phe
 50          55          60
Ala Ile Ala Cys Leu Gln Arg Ala Leu Asn Leu Ala Pro Leu Gln Tyr
 65          70          75          80
Gln Asp Val Pro Leu Val Asn Leu Ala Asn Leu Leu Ile His Tyr Gly
 85          90          95
Leu His Leu Asp Ala Thr Lys Leu Leu Leu Gln Ala Leu Ala Ile Asn
100          105          110
Ser Ser Glu Pro Leu Thr Phe Leu Ser Leu Gly Asn Ala Tyr Leu Ala
115          120          125
Leu Lys Asn Ile Ser Gly Ala Leu Glu Ala Phe Arg Gln Ala Leu Lys
130          135          140
Leu Thr Thr Lys Cys Pro Glu Cys Glu Asn Ser Leu Lys Leu Ile Arg
145          150          155          160
Cys Met Gln Phe Tyr Pro Phe Leu Tyr Asn Ile Thr Ser Ser Val Cys
165          170          175
Ser Gly Asn Cys His Glu Lys Thr Leu Asp Asn Ser His Asp Lys Gln
180          185          190
Lys Tyr Phe Asp Asn Ser Gln Ser Leu Asp Ala Ala Glu Glu Glu Pro
195          200          205
Ser Glu Arg Gly Thr Glu Glu Asp Pro Val Phe Ser Val Glu Asn Ser
210          215          220
Gly Arg Asp Ser Asp Ala Leu Arg Leu Glu Ser Thr Val Val Glu Glu
225          230          235          240
Ser Asn Gly Ser Asp Glu Met Glu Asn Ser Asp Glu Thr Lys Met Ser
245          250          255
Glu Glu Ile Leu Ala Leu Val Asp Glu Phe Gln Gln Ala Trp Pro Leu
260          265          270
Glu Gly Phe Gly Gly Ala Leu Glu Met Lys Gly Arg Arg Leu Asp Leu
275          280          285
Gln Gly Ile Arg Val Leu Lys Lys Gly Pro Gln Asp Gly Val Ala Arg
290          295          300
Ser Ser Cys Tyr Gly Asp Cys Arg Ser Glu Asp Asp Glu Ala Thr Glu
305          310          315          320
Trp Ile Thr Phe Gln Val Lys Arg Val Lys Lys Pro Lys Gly Asp His
325          330          335
Lys Lys Thr Pro Gly Lys Lys Val Glu Thr Gly Gln Ile Glu Asn Gly
340          345          350
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Pro Gly Pro Gln Gly Leu Leu Asp Trp Lys Thr Arg Lys Val Pro
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<210> 4693
 <211> 794
 <212> DNA
 <213> Homo sapiens

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<210> 4694
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 4694
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 Asn Ser Gly Val Gly Gln Asp Gly Ser Leu Leu Ser Ser Pro Phe Leu
 35 40 45
 Lys Gly Phe Leu Ala Gly Tyr Val Val Ala Lys Leu Arg Ala Ser Ala
 50 55 60
 Val Leu Gly Phe Ala Val Gly Thr Cys Thr Gly Ile Tyr Ala Ala Gln
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<210> 4695

<211> 2209

<212> DNA

<213> Homo sapiens

<400> 4695

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<210> 4696

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4696

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 35 40 45
 Leu Leu Lys Leu Ile Asp Ala Glu Thr Thr Ala Ala Trp Pro Asn
 50 55 60
 Val Ala Ala Val Ser Ile Thr Gly Arg Lys Arg Ser Arg Val Ala Pro
 65 70 75 80
 Ala Glu Pro Gln Glu Ala Pro Asp Ser Thr Ala Ala Xaa Glu Ala Gln
 85 90 95
 Pro Arg Ser Xaa Met Ala Leu Val Leu Glu Arg Val Cys Ser Thr Leu
 100 105 110
 Leu Gly Leu Glu Glu His Leu Asn Ala Leu Asp Arg Ala Ala Gly Asp
 115 120 125
 Gly Asp Cys Gly Thr Thr His Ser Arg Ala Ala Arg Ala Ile Gln Glu
 130 135 140
 Trp Leu Lys Glu Gly Pro Pro Pro Ala Ser Pro Ala Gln Leu Leu Ser

145 150 155 160
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 165 170 175
 Leu Tyr Gly Leu Phe Leu Thr Ala Ala Ala Gln Pro Leu Lys Ala Lys
 180 185 190
 Thr Ser Leu Pro Ala Trp Ser Ala Ala Met Asp Ala Gly Leu Glu Ala
 195 200 205
 Met Gln Lys Tyr Gly Lys Ala Ala Pro Gly Asp Arg Thr Met Leu Asp
 210 215 220
 Ser Leu Trp Ala Ala Glu Gln Glu Leu Gln Ala Trp Lys Ser Pro Gly
 225 230 235 240
 Ala Asp Leu Leu Gln Val Leu Thr Lys Ala Val Lys Ser Ala Glu Ala
 245 250 255
 Ala Ala Glu Ala Thr Lys Asn Met Glu Ala Gly Ala Gly Arg Ala Ser
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 Ala Ala Ala Ile Leu Arg Ala Ile Leu Glu Val Leu Gln Ser
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<210> 4697

<211> 1047

<212> DNA

<213> Homo sapiens

<400> 4697

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<210> 4698

<211> 182

<212> PRT

<213> Homo sapiens

<400> 4698

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 35 40 45
 Pro Ser Cys Leu Pro Gly Ile Ser Ile Asn Ser Glu Gln Leu Thr Arg
 50 55 60
 Ala Gln Cys Val Thr Val Lys Glu Lys Leu Leu Glu Gln Ala Glu Ser
 65 70 75 80
 Leu Leu Ser Glu Pro Met Val His Glu Leu Val Leu Trp Ile Gln Gln
 85 90 95
 Asn Leu Arg His Ile Leu Ser Gln Pro Glu Thr Gly Ser Gly Ser Glu
 100 105 110
 Lys Cys Thr Phe Ser Thr Ser Thr Thr Met Asp Asp Gly Leu Trp Ile
 115 120 125
 Thr Leu Leu His Leu Asp His Met Arg Ala Lys Thr Lys Tyr Val Lys
 130 135 140
 Ile Val Glu Lys Trp Ala Ser Asp Leu Arg Leu Thr Gly Arg Leu Met
 145 150 155 160
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 165 170 175
 Leu Lys Val Pro Lys Ser
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<210> 4699

<211> 1441

<212> DNA

<213> Homo sapiens

<400> 4699

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 660
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 720
 ggctttcata gggttattga gattgagctg agatgacctg ggagagaaag atctagggtga
 780
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 840
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 900
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 960
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 1080
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 1441

<210> 4700

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4700

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 1 5 10 15
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 20 25 30
 Ile Cys Cys Pro Arg His Pro Leu Met Arg Leu Lys Leu Gly Pro Ser

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      35              40              45
Glu Thr Ala Ala Ala Pro Tyr Arg Ala Cys Trp Leu Cys Arg Gly Glu
 50              55              60
Val Asp Asp Lys Gly Thr Arg His Ala Ser Ala Pro Cys Val Arg Ser
 65              70              75              80
Gly Leu Gly His Ser Pro Cys Thr Ser Lys Thr Pro Val Leu Thr Pro
      85              90              95
Thr Ser Lys Glu Leu Leu Leu Leu Ile Cys Lys Ala Ile Leu Leu Leu
      100              105              110
Ser Asn Leu Val
      115

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<210> 4701
<211> 812
<212> DNA
<213> Homo sapiens

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<400> 4701
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tgcaatgttg gctcactgca gcccacacct cctgggotta agtgatctct ctacctcagc
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 480
tgctgcctct cagccacctg ccagccctgt tttatgaata tgtttacogt ggctgtcact
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 720
atctcattct tgtccgcag ctcactctcc cgtccacggg tggctgcggc catggcttcc
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tgctttctga agaactctc ctgcttcogt aa
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<210> 4702
<211> 69
<212> PRT
<213> Homo sapiens

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<400> 4702
Arg Gln Gly Phe Thr Leu Thr Arg Met Ile Ser Ile Ser Gly Pro Arg

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      1           5           10           15
Asp Pro Pro Thr Ser Ala Ser Glu Asn Ala Gly Ile Thr Gly Leu Ser
      20           25           30
His Xaa Pro Pro Gly His Phe Phe Leu Glu Thr Arg Ser Tyr Ser Leu
      35           40           45
Ala Lys Asn Gly Val Gln Trp Cys Asn Val Gly Ser Leu Gln Pro Lys
      50           55           60
Pro Pro Gly Leu Lys
65

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<210> 4703

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4703

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120
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180
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240
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300
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360
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513

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<210> 4704

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4704

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Met Ala Ala Pro Glu Gln Pro Leu Ala Ile Ser Arg Gly Cys Thr Ser
      1           5           10           15
Ser Ser Ser Leu Ser Pro Pro Arg Ala Asp Arg Thr Leu Leu Val Arg
      20           25           30
His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
      35           40           45
Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
      50           55           60
Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
      65           70           75           80
Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
      85           90           95
Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

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100

105

110

<210> 4705
 <211> 569
 <212> DNA
 <213> Homo sapiens

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 120
 gaaggatgga aaggaccag gagcgataac agtaaataca ataagatatt tgcggtgga
 180
 attcctcaca atttgtgtga gacagagctc agggataact tcaagaagtt cggagtgttc
 240
 acggaggtag tcatgatcta tgacgccgag aagcagaggc cccgaggtaa gggcagatct
 300
 agtttgacct cggccttctc cctgctcttc cctcagatgg caaactatct caccgccag
 360
 gcacacacag gtggcggtg tagcaaacag cctcaggaag ggacgatttg gagacaaatg
 420
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 569

<210> 4706
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 4706
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 20 25 30
 Thr Glu Leu Arg Glu Tyr Phe Lys Lys Phe Gly Val Val Thr Glu Val
 35 40 45
 Val Met Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Lys Gly Arg
 50 55 60
 Ser Ser Leu Thr Ser Ala Phe Ser Leu Leu Pro Gln Met Ala Asn
 65 70 75 80
 Tyr Leu Thr Arg Gln Ala His Thr Gly Gly Gly Cys Ser Lys Gln Pro
 85 90 95
 Gln Glu Gly Thr Ile Trp Arg Gln Met Thr Lys Thr Trp Ala Pro His
 100 105 110
 Val His Pro Ile Gln Pro Val Cys Ala Ser Arg Gly Gln Thr Ser His
 115 120 125
 Ile Val Phe Trp Leu Val Leu Lys Phe Leu Arg Leu Val Met Ser
 130 135 140
 Leu Gly Leu Ala Ser Val Phe His Cys Pro

145

150

<210> 4707

<211> 748

<212> DNA

<213> Homo sapiens

<400> 4707

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 120
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 180
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 240
 tatttccctg tttccagaat ccttagcgcg aggcggaaaa aatatttctc ccagcttggt
 300
 ttgatgccg gatatttgact gagacttctt cccacgattt ctgtttttgc ttctccaagg
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 aaaatggcag ctcccagca gccgcttgcg atatcaaggg gatgcacgag ctctctctcg
 420
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<210> 4708

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4708

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Ser	Ser	Ser	Leu	Ser	Pro	Pro	Arg	Gly	Asp	Arg	Thr	Leu	Val	Arg	
			20				25					30			
His	Leu	Pro	Ala	Glu	Leu	Thr	Ala	Glu	Glu	Lys	Glu	Asp	Leu	Leu	Lys
			35				40					45			
Tyr	Phe	Gly	Ala	Gln	Ser	Val	Arg	Val	Leu	Ser	Asp	Lys	Gly	Arg	Leu
			50			55			60						
Lys	His	Thr	Ala	Phe	Ala	Thr	Phe	Pro	Asn	Glu	Lys	Ala	Ala	Ile	Lys
			65			70			75					80	
Ala	Leu	Thr	Arg	Leu	His	Gln	Leu	Lys	Leu	Gly	His	Thr	Leu	Val	
				85			90					95			
Val	Glu	Phe	Ala	Lys	Glu	Gln	Asp	Arg	Val	His	Ser	Pro	Cys	Pro	Thr

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Ser Gly Ser Glu Lys Lys Lys Met Ser Asp Asp Pro Val Glu Asp Asp					
	115		120		125

<210> 4709
 <211> 1351
 <212> DNA
 <213> Homo sapiens

<400> 4709
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 180
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 240
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 720
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 960
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1351

<210> 4710

<211> 304

<212> PRT

<213> Homo sapiens

<400> 4710

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Leu Asp Trp Ser Thr Thr Gln Glu Thr Leu Arg Ser Tyr Phe Ser Gln
      20           25           30
Tyr Gly Glu Val Val Asp Cys Val Ile Met Lys Asp Lys Thr Thr Asn
      35           40           45
Gln Ser Arg Gly Phe Gly Phe Val Lys Phe Lys Asp Pro Asn Cys Val
      50           55           60
Gly Thr Val Leu Ala Ser Arg Pro His Thr Leu Asp Gly Arg Asn Ile
      65           70           75           80
Asp Pro Lys Pro Cys Thr Pro Arg Gly Met Gln Pro Glu Arg Thr Arg
      85           90           95
Pro Lys Glu Gly Trp Gln Lys Gly Pro Arg Ser Asp Asn Ser Lys Ser
      100          105          110
Asn Lys Ile Phe Val Gly Gly Ile Pro His Asn Cys Gly Glu Thr Glu
      115          120          125
Leu Arg Glu Tyr Phe Lys Lys Phe Gly Val Val Thr Glu Val Val Met
      130          135          140
Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Phe Gly Phe Ile Thr
      145          150          155          160
Phe Glu Asp Glu Gln Ser Val Asp Gln Ala Val Asn Met His Phe His
      165          170          175
Asp Ile Met Gly Lys Lys Val Glu Val Lys Arg Ala Glu Pro Arg Asp
      180          185          190
Ser Lys Ser Gln Ala Pro Gly Gln Pro Gly Ala Ser Gln Trp Gly Ser
      195          200          205
Arg Val Val Pro Asn Ala Ala Asn Gly Trp Ala Gly Gln Pro Pro Pro
      210          215          220
Thr Trp Gln Gln Gly Tyr Gly Pro Gln Gly Met Trp Val Pro Ala Gly
      225          230          235          240
Gln Ala Ile Gly Gly Tyr Gly Pro Pro Pro Ala Gly Arg Gly Ala Pro
      245          250          255
Pro Pro Pro Pro Pro Phe Thr Ser Tyr Ile Val Ser Thr Pro Pro Gly
      260          265          270
Gly Phe Pro Pro Pro Gln Gly Phe Pro Gln Gly Tyr Gly Ala Pro Pro
      275          280          285
Gln Phe Ser Phe Gly Tyr Gly Pro Pro Pro Pro Pro Gly Ser Arg
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<210> 4711

<211> 2061

<212> DNA

<213> Homo sapiens

<400> 4711

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 2040
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 2061

<210> 4712

<211> 187

<212> PRT

<213> Homo sapiens

<400> 4712

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 Val Gly Ser Gly Ser Arg Glu Leu Ser Leu Arg Pro Ser Arg Ser Gly
 35 40 45
 Ala Gln Gln Leu Glu Glu Gly Pro Met Glu Glu Glu Ala Gln
 50 55 60
 Pro Met Ala Ala Pro Glu Gly Lys Arg Ser Leu Ala Asn Gly Pro Asn
 65 70 75 80
 Ala Gly Glu Gln Pro Gly Gln Val Ala Gly Ala Asp Phe Glu Ser Glu
 85 90 95
 Asp Glu Gly Glu Glu Phe Asp Asp Trp Glu Asp Asp Tyr Asp Tyr Pro
 100 105 110
 Glu Glu Glu Gln Leu Ser Gly Ala Gly Tyr Arg Val Ser Ala Ala Leu
 115 120 125
 Glu Glu Ala Asp Lys Met Phe Leu Arg Thr Arg Glu Pro Ala Leu Asp
 130 135 140
 Gly Gly Phe Gln Met His Tyr Glu Lys Thr Pro Phe Asp Gln Leu Ala
 145 150 155 160
 Phe Ile Glu Glu Leu Phe Ser Leu Met Val Val Asn Arg Leu Thr Glu
 165 170 175
 Glu Leu Gly Cys Asp Glu Ile Ile Asp Arg Glu
 180 185

<210> 4713

<211> 1324

<212> DNA

<213> Homo sapiens

<400> 4713

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120 ctctcacgga acgcccctct ctccacaga accccctcct ctcaccgaat cccatctcag
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<210> 4714

<211> 145

<212> PRT

<213> Homo sapiens

<400> 4714

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      20             25             30
Val Gln Val Val Gly Arg Ala Phe Ala Arg Ala Leu Arg Gln Glu Phe
      35             40             45
Ala Ala Ser Arg Ala Ala Ala Asp Ala Arg Gly Arg Ala Gly His Arg
      50             55             60
Ser Ala Ala Ala Ser Asn Leu Ser Gly Leu Ser Leu Gln Glu Ala Gln
      65             70             75
Gln Ile Leu Asn Val Ser Lys Leu Ser Pro Glu Glu Val Gln Lys Asn
      85             90             95
Tyr Glu His Leu Phe Lys Val Asn Asp Lys Ser Val Gly Gly Ser Phe
      100            105            110
Tyr Leu Gln Ser Lys Val Val Arg Ala Lys Glu Arg Leu Asp Glu Glu
      115            120            125
Leu Lys Ile Gln Ala Gln Glu Asp Arg Glu Lys Gly Gln Met Pro His
      130            135            140
Thr
145

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<210> 4715

<211> 2051

<212> DNA

<213> Homo sapiens

<400> 4715

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840

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<210> 4716

<211> 239

<212> PRT

<213> Homo sapiens

<400> 4716

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 20 25 30
 Pro Ala Lys Glu Phe Thr Asn His Trp Trp Asn Glu Leu Phe Asn Lys

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      35              40              45
Thr Ala Ala Asn Leu Val Val Glu Thr Gly Gln Asp Gly Val Gln Ile
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Arg Ser Leu Ser Lys Glu Thr Thr Arg Tyr Asn His Pro Lys Pro Asn
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Leu Leu Tyr Gln Lys Phe Val Lys Met Ala Thr Leu Thr Ser Gly Gly
      85              90              95
Glu Lys Pro Asn Lys Asp Leu Glu Ser Cys Ser Asp Asp Asp Asn Gln
      100              105              110
Gly Ser Lys Ser Pro Lys Ile Leu Thr Asp Glu Met Leu Leu Gln Ala
      115              120              125
Cys Glu Gly Arg Thr Ala His Lys Ala Ala Arg Leu Gly Ile Thr Met
      130              135              140
Lys Ala Lys Leu Ala Arg Leu Glu Ala Gln Glu Gln Ala Phe Leu Ala
      145              150              155              160
Arg Leu Lys Gly Gln Asp Pro Gly Ala Pro Gln Leu Gln Ser Glu Ser
      165              170              175
Lys Pro Pro Lys Lys Lys Lys Lys Lys Arg Arg Gln Lys Glu Glu Glu
      180              185              190
Glu Ala Thr Ala Ser Glu Arg Asn Asp Ala Asp Glu Lys His Pro Glu
      195              200              205
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<210> 4717

<211> 2753

<212> DNA

<213> Homo sapiens

<400> 4717

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 660

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2220
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2280

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<210> 4718

<211> 259

<212> PRT

<213> Homo sapiens

<400> 4718

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 35 40 45
 Arg Glu Glu Glu Glu Glu Asn Asp Asp Asp Asn Ser Leu Glu Gly Glu
 50 55 60
 Thr Phe Pro Leu Glu Arg Asp Glu Val Met Pro Pro Pro Leu Gln His
 65 70 75 80
 Pro Gln Thr Asp Arg Leu Thr Cys Pro Lys Gly Leu Pro Trp Ala Pro
 85 90 95
 Lys Val Arg Glu Lys Asp Ile Glu Met Phe Leu Glu Ser Ser Arg Ser
 100 105 110
 Lys Phe Ile Gly Tyr Thr Leu Gly Ser Asp Thr Asn Thr Val Val Gly
 115 120 125
 Leu Pro Arg Pro Ile His Glu Ser Ile Lys Thr Leu Lys Gln His Lys
 130 135 140
 Tyr Thr Ser Ile Ala Glu Val Gln Ala Gln Met Lys Glu Glu Tyr Leu
 145 150 155 160
 Arg Ser Pro Leu Ser Gly Gly Glu Glu Glu Val Glu Gln Val Pro Ala
 165 170 175
 Glu Thr Leu Tyr Gln Gly Leu Leu Pro Ser Leu Pro Gln Tyr Met Ile
 180 185 190
 Ala Leu Leu Lys Ile Leu Leu Ala Ala Ala Pro Thr Ser Lys Ala Lys
 195 200 205
 Thr Asp Ser Ile Asn Ile Leu Ala Asp Val Leu Pro Glu Glu Met Pro
 210 215 220
 Thr Thr Val Leu Gln Ser Met Lys Leu Gly Val Asp Val Asn Arg His
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 Lys Glu Val Ile Val Lys Ala Ile Ser Ala Ala Leu Leu Leu Leu Leu

245 250 255

Lys His Phe

<210> 4719
 <211> 589
 <212> DNA
 <213> Homo sapiens

<400> 4719
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 180
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 420
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<210> 4720
 <211> 196
 <212> PRT
 <213> Homo sapiens

<400> 4720
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 20 25 30
 Glu Lys Asp Pro Asp Gly Cys Tyr Arg Leu Val Asp Tyr Leu Glu Gly
 35 40 45
 Ile Arg Lys Asn Phe Asp Glu Ala Ala Lys Val Leu Lys Phe Asn Cys
 50 55 60
 Glu Glu Asn Gln His Ser Asp Ser Cys Tyr Lys Leu Gly Ala Tyr Tyr
 65 70 75 80
 Val Thr Gly Lys Gly Gly Leu Thr Gln Asp Leu Lys Ala Ala Arg
 85 90 95
 Cys Phe Leu Met Ala Cys Glu Lys Pro Gly Lys Lys Ser Ile Ala Ala
 100 105 110
 Cys His Asn Val Gly Leu Leu Ala His Asp Gly Gln Val Asn Glu Asp
 115 120 125
 Gly Gln Pro Asp Leu Gly Lys Ala Arg Asp Tyr Tyr Thr Arg Ala Cys

130		135		140	
Asp Gly Gly Tyr Thr Ser Ser Cys Phe Asn Leu Ser Ala Met Phe Leu					
145		150		155	160
Gln Gly Ala Pro Gly Phe Pro Lys Asp Met Asp Leu Ala Cys Lys Tyr					
	165		170		175
Ser Met Lys Ala Cys Asp Leu Gly His Ile Trp Ala Cys Ala Asn Ala					
	180		185		190
Ser Arg Met Tyr					
195					

<210> 4721

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4721

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240
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420
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480
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780
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1140

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 1385

<210> 4722

<211> 285

<212> PRT

<213> Homo sapiens

<400> 4722

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		20						25					30		
Leu	Leu	His	Gly	Thr	Pro	Asp	Gln	Lys	Arg	Lys	Leu	Ile	Arg	Glu	Cys
		35				40						45			
Leu	Thr	Gly	Glu	Ser	Glu	Ser	Ser	Ser	Glu	Asp	Glu	Phe	Glu	Lys	Glu
	50					55					60				
Met	Glu	Ala	Glu	Leu	Asn	Ser	Thr	Met	Lys	Thr	Met	Glu	Asp	Lys	Leu
65					70				75					80	
Ser	Ser	Leu	Gly	Thr	Gly	Ser	Ser	Ser	Gly	Asn	Gly	Lys	Val	Ala	Thr
			85						90					95	
Ala	Pro	Thr	Arg	Tyr	Tyr	Asp	Asp	Ile	Tyr	Phe	Asp	Ser	Asp	Ser	Glu
			100					105					110		
Asp	Glu	Asp	Arg	Ala	Val	Gln	Val	Thr	Lys	Lys	Lys	Lys	Lys	Lys	Gln
			115					120				125			
His	Lys	Ile	Pro	Thr	Asn	Asp	Glu	Leu	Leu	Tyr	Asp	Pro	Glu	Lys	Asp
			130			135					140				
Asn	Arg	Asp	Gln	Ala	Trp	Val	Asp	Ala	Gln	Arg	Arg	Gly	Tyr	His	Gly
145					150					155				160	
Leu	Gly	Pro	Gln	Arg	Ser	Arg	Gln	Gln	Gln	Pro	Val	Pro	Asn	Ser	Asp
			165						170					175	
Ala	Val	Leu	Asn	Cys	Pro	Ala	Cys	Met	Thr	Thr	Leu	Cys	Leu	Asp	Cys
			180					185					190		
Gln	Arg	His	Glu	Ser	Tyr	Lys	Thr	Gln	Tyr	Arg	Ala	Met	Phe	Val	Met
		195					200					205			
Asn	Cys	Ser	Ile	Asn	Lys	Glu	Glu	Val	Leu	Arg	Tyr	Lys	Ala	Ser	Glu
		210				215						220			
Asn	Arg	Lys	Lys	Arg	Arg	Val	His	Lys	Lys	Met	Arg	Ser	Asn	Arg	Glu
225					230					235				240	
Asp	Ala	Ala	Glu	Lys	Ala	Glu	Thr	Asp	Val	Glu	Glu	Ile	Tyr	His	Pro
			245					250					255		
Val	Met	Cys	Thr	Glu	Cys	Ser	Thr	Glu	Val	Ala	Val	Tyr	Asp	Lys	Asp
			260					265					270		
Glu	Val	Phe	His	Phe	Phe	Asn	Val	Leu	Ala	Ser	His	Ser			
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<210> 4723
 <211> 1213
 <212> DNA
 <213> Homo sapiens

<400> 4723
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 120
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<210> 4724
 <211> 54
 <212> PRT
 <213> Homo sapiens

<400> 4724

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Met Gly Pro Arg Arg His Arg Ala Ser Ser Ile Leu Pro Gln Thr Leu
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Val Gly Val Pro Val Gly Trp Gly Gly Glu Trp Gly Glu Pro Thr Pro
          20           25           30
Gly Pro Pro Ser Pro Phe Pro Arg Gln Ser Pro Phe Gly Leu Asn Pro
          35           40           45
Phe Leu Pro Ala Gly Asp
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<210> 4725

<211> 366

<212> DNA

<213> Homo sapiens

<400> 4725

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366

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<210> 4726

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4726

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Xaa Phe Leu Glu Gly Glu Leu Gly Arg Ser Arg Arg Thr Pro Ala Gly
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Gly Arg Gly Ala Met Leu Ala Ile Asp Thr Ala Ser Asp Ile Leu Ala
          20           25           30
His Val His Val Tyr Ser Arg Leu Cys Ala Cys Ala Arg Val Tyr Met
          35           40           45
His Met Cys Thr Gly Ala Cys Ala Cys Val Asn Thr Cys Ser His Val
          50           55           60
Cys Thr Cys Xaa Ser Cys Pro Cys Xaa Tyr Val His Thr Cys Leu Cys
          65           70           75           80
Met His Ala Cys Ile Ala Val Cys Pro Tyr Pro His Val Arg Ile His
          85           90           95
Met Arg Leu Cys Leu His Leu Cys Met His Ala Ser Val Leu Leu Arg
          100          105          110
Ala Trp Val Cys Ile Cys Ala Cys Thr Arg
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<210> 4727

<211> 2031

<212> DNA

<213> Homo sapiens

<400> 4727

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tagctgggat tacagggacc caccaccaca ccggcgtaat tttttttgta tttttactag
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1320
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1440

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<210> 4728

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4728

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 20 25 30
 Gln Trp Asp Ser Asp Glu Pro Ile Pro Ala Lys Glu Leu Glu Arg Gly
 35 40 45
 Val Ala Gly Ala His Gly Leu Leu Cys Leu Leu Ser Asp His Val Asp
 50 55 60
 Lys Arg Ile Leu Asp Ala Ala Gly Ala Asn Leu Lys Val Ile Ser Thr
 65 70 75 80
 Met Ser Val Gly Ile Asp His Leu Ala Leu Asp Glu Ile Lys Lys Arg
 85 90 95
 Gly Ile Arg Val Gly Tyr Thr Pro Asp Val Leu Thr Asp Thr Thr Ala
 100 105 110
 Glu Leu Ala Val Ser Leu Leu Leu Thr Thr Cys Arg Arg Leu Pro Glu
 115 120 125
 Ala Ile Glu Glu Val Lys Asn Gly Gly Trp Thr Ser Trp Lys Pro Leu
 130 135 140
 Trp Leu Cys Gly Tyr Gly Leu Thr Gln Ser Thr Val Gly Ile Ile Gly
 145 150 155 160
 Leu Gly Arg Ile Gly Gln Ala Ile Ala Arg Arg Leu Lys Pro Phe Gly
 165 170 175
 Val Gln Arg Phe Leu Tyr Thr Gly Arg Gln Pro Arg Pro Glu Glu Ala
 180 185 190
 Ala Glu Phe Gln Ala Glu Phe Val Ser Thr Pro Glu Leu Ala Ala Gln
 195 200 205
 Ser Asp Phe Ile Val Val Ala Cys Ser Leu Thr Pro Ala Thr Glu Gly

210	215	220
Leu Cys Asn Lys Asp Phe Phe Gln Lys Met Lys Glu Thr Ala Val Phe		
225	230	235
Ile Asn Ile Ser Arg Gly Asp Val Val Asn Gln Asp Asp Leu Tyr Gln		
	245	250
Ala Leu Ala Ser Gly Lys Ile Ala Ala Ala Gly Leu Asp Val Thr Ser		
	260	265
Pro Glu Pro Leu Pro Thr Asn His Pro Leu Leu Thr Leu Lys Asn Cys		
	275	280
Val Ile Leu Pro His Ile Gly Ser Ala Thr His Arg Thr Arg Asn Thr		
	290	295
Met Ser Leu Leu Ala Ala Asn Asn Leu Leu Ala Gly Leu Arg Gly Glu		
305	310	315
Pro Met Pro Ser Glu Leu Lys Leu		
	325	

<210> 4729

<211> 753

<212> DNA

<213> Homo sapiens

<400> 4729

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 120
 cctgttgttg gatttgggga aattttttgt ttgtttttta tgatttgtat ttgactgaga
 180
 gaaacccact gaagacgtct gcgtgagaat agagaccacc gagggccgact cgcgggcccgc
 240
 tgcacccacc gccaaaggaca aaaggagccc agcgtacta gctgcaccgg attcctccca
 300
 gtgcttagca tgaagaaggc cgaaatggga cgattcagta tttccccgga tgaagacaga
 360
 agcagctaca gttccaacag cgacttcaac tactcctacc ccaccaagca agctgctctg
 420
 aaaagccatt atgcagatgt agatcctgaa aaccagaact ttttacttga atcgaatttg
 480
 gggaagaaga agtatgaaac agaatttcat ccagggtacta cttccttttg aatgtcagta
 540
 tttaatctga gcaatgcgat tgtgggcagt ggaatccttg ggctttctta tgccattggct
 600
 aatcattggaa ttgctctttt tataattctc ttgacatttg tgtaaatatt ttccctgtat
 660
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 753

<210> 4730

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4730

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Met Lys Lys Ala Glu Met Gly Arg Phe Ser Ile Ser Pro Asp Glu Asp
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Ser Ser Ser Tyr Ser Ser Asn Ser Asp Phe Asn Tyr Ser Tyr Pro Thr
          20          25          30
Lys Gln Ala Ala Leu Lys Ser His Tyr Ala Asp Val Asp Pro Glu Asn
          35          40          45
Gln Asn Phe Leu Leu Glu Ser Asn Leu Gly Lys Lys Tyr Glu Thr
          50          55          60
Glu Phe His Pro Gly Thr Thr Ser Phe Gly Met Ser Val Phe Asn Leu
65          70          75          80
Ser Asn Ala Ile Val Gly Ser Gly Ile Leu Gly Leu Ser Tyr Ala Met
          85          90          95
Ala Asn Thr Gly Ile Ala Leu Phe Ile Ile Leu Leu Thr Phe Val Ser
          100          105          110
Ile Phe Ser Leu Tyr Ser Val His Leu Leu Leu Lys Thr Ala Asn Glu
          115          120          125
Gly Gly Ser Leu Leu Tyr Glu Gln Leu Gly Tyr Lys Ala Ser Gly Leu
          130          135          140
Val Gly Lys Leu
145

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<210> 4731

<211> 2417

<212> DNA

<213> Homo sapiens

<400> 4731

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120
ttggaagaca gctgaggaaa aaggcgccaa taagacaaac tcacagatgg gatttatctc
180
cctcttgctt tttttttttt tttttgcccc tggtaaaagt cagaacctgg gatgaccaga
240
aagtaacagg acagatttct ccagcaaat cagctccac aaccaaata atattgttct
300
ccaaggagtc aagctataga ctcacaatga caacgtggcc atggctcaaa acactctctg
360
aaattacaaa attgctttct gagccaattt aaaagtcaca tgattgaatc caagctattt
420
tactttaaat ggtccttttg ctttgacact gagacctgc ttggccacag acgtcattcg
480
ctggactccc tgggcactaa atgagtgtct agcatcctta aggctgctca acacacagcc
540
ccagactctg aatatgattc caagaaatat tctgaaaaaa gtcacatcgc tggataataac
600
agtttcccaa gataactgct ttgaaaacca gtcccgtag tttctaaaaa cccacctacg
660
gcaccttctt tccatcagag tctgctgccc ggggtgggctg ggaaggaggg agatacaaa
720
aagaaagtag gcatgatcac tgggtcggtt cccaagccac cctcacctc caagaaggca
780

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tgaatggaac aacccccgaga acagagcacg tgtgaagaac caacacgaca ggcacgggat
840
ggcagcactg gtggaaggga ggcaaggagg cgcacagtgc caaggaggag aggggggcaca
900
agcgcgacca gggaaggtgg caccaaaacc tagtaagaac aaagcaaac caccgtggtt
960
tcacactgc tctctccctt tattctctctc ttctctgccc tgtataccaa cggcataaga
1020
agcctgcaca aagagaaaaa tccgtatatc cagttatatc tacacgggcc aaactggggg
1080
cgggggggaat tcaaacagct ttctaagac gagacggcag tgaacctct gagggagagg
1140
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1200
atgaggacct gaagctgggg gttgtcttgg gaagtggagg ggggtggaaa acaccatcag
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1320
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1920
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1980
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2220
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2280
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2400

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<210> 4732
<211> 129
<212> PRT
<213> Homo sapiens

<400> 4732
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20 25 30
Ala Arg Met Ala Gly His Val Ser Val Leu Val Ser His Phe Pro Pro
35 40 45
Ser Val Thr Tyr Leu Gly Ile Pro Gln Gly Leu Leu Glu Cys Asp Cys
50 55 60
Pro Leu Pro Ser Cys Leu Gly Tyr Lys Ser Trp Pro Tyr Val Pro Ala
65 70 75 80
Val Arg Gly Ser Gly Asn Pro Thr Gln Pro Pro Val Leu Gly Trp Ser
85 90 95
Val Ser Ile His Pro Leu Val Val Ile Glu Ala Ala Leu Pro Val Leu
100 105 110
Gly Glu Asp Ile Trp Ala Thr Arg Ala Pro Leu Ala Pro Ser Arg Arg
115 120 125
Lys

<210> 4733
<211> 543
<212> DNA
<213> Homo sapiens

<400> 4733
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120
tccattccca ataactgtaa gctgcagtgt gtatcctgga acaaggaaca aggggttcata
180
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240
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360
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420
atcaacaatc gaaataaatc agttgttcgc agtatgagct ggaatgtgga cggacagaag
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540
tgg
543

<210> 4734
 <211> 181
 <212> PRT
 <213> Homo sapiens

<400> 4734
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 1 5 10 15
 Val Glu Gly Leu Ser Gly Arg Arg Asp Pro Leu Gly Asp Pro Thr Met
 20 25 30
 Phe Phe Tyr Leu Ser Lys Lys Ile Ser Ile Pro Asn Asn Val Lys Leu
 35 40 45
 Gln Cys Val Ser Trp Asn Lys Glu Gln Gly Phe Ile Ala Cys Gly Gly
 50 55 60
 Glu Asp Gly Leu Leu Lys Val Leu Lys Leu Glu Thr Gln Thr Asp Asp
 65 70 75 80
 Ala Lys Leu Arg Gly Leu Ala Ala Pro Ser Asn Leu Ser Met Asn Gln
 85 90 95
 Thr Leu Glu Gly His Ser Gly Ser Val Gln Val Val Thr Trp Asn Glu
 100 105 110
 Gln Tyr Gln Lys Leu Thr Thr Ser Asp Glu Asn Gly Leu Ile Ile Val
 115 120 125
 Trp Met Leu Tyr Lys Gly Ser Trp Ile Glu Glu Met Ile Asn Asn Arg
 130 135 140
 Asn Lys Ser Val Val Arg Ser Met Ser Trp Asn Ala Asp Gly Gln Lys
 145 150 155 160
 Ile Cys Ile Val Tyr Glu Asp Gly Ala Val Ile Val Gly Ser Val Asp
 165 170 175
 Gly Asn Arg Ile Trp
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<210> 4735
 <211> 300
 <212> DNA
 <213> Homo sapiens

<400> 4735
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 120
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 180
 cgtgtccag gcaaaagcct cagctttgca gcagcagcag tactaccagt ggtaccagca
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 300

<210> 4736
 <211> 93
 <212> PRT
 <213> Homo sapiens

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<400> 4736
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Glu Asn Pro Glu Trp Glu Lys Ala Arg Gln Ala Leu Ala Ser Ile Ser
20      25      30
Lys Ser Gly Ala Ala Gly Gly Ser Ala Lys Ser Ser Ser Asn Gly Pro
35      40      45
Val Ala Ser Ala Gln Tyr Val Ser Gln Ala Lys Ala Ser Ala Leu Gln
50      55      60
Gln Gln Gln Tyr Tyr Gln Trp Tyr Gln Gln Asp Asn Tyr Ala Tyr Pro
65      70      75      80
Tyr Ser Tyr Tyr Tyr Pro Met Pro Pro Gly Pro Gly Met
85      90

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<210> 4737
<211> 2602
<212> DNA
<213> Homo sapiens

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<400> 4737
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120
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180
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240
caagtgaaca tgtgggaacg ggatgtttcc agtgacaggc aggagccagg gcggagaggc
300
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960
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1020

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caaccttcag attccctgga gacctgagttt accaggaagt gccagtcctt gctgaaccgc
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1140
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1260
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1980
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2100
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2580
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2602

<210> 4738

<211> 756

<212> PRT

<213> Homo sapiens

<400> 4738

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His Gln Asp Val Ser Glu Arg Arg Leu Asp Thr Gln Arg Pro Gln Val
 20           25           30
Thr Met Trp Trp Glu Arg Asp Val Ser Asp Arg Gln Glu Pro Gly Arg
 35           40           45
Arg Gly Arg Ser Trp Gly Leu Glu Gly Ser Gln Ala Leu Ser Gln Gln
 50           55           60
Ala Glu Val Ile Val Arg Gln Leu Gln Glu Leu Arg Arg Leu Glu Glu
 65           70           75           80
Glu Val Arg Leu Leu Arg Glu Thr Ser Leu Gln Gln Lys Met Arg Leu
 85           90           95
Glu Ala Gln Ala Met Glu Leu Glu Ala Leu Ala Arg Ala Glu Lys Ala
100           105           110
Gly Arg Ala Glu Ala Glu Gly Leu Arg Ala Ala Leu Ala Gly Ala Glu
115           120           125
Val Val Arg Lys Asn Leu Glu Glu Gly Arg Gln Arg Glu Leu Glu Glu
130           135           140
Val Gln Arg Leu His Gln Glu Gln Leu Ser Ser Leu Thr Gln Ala His
145           150           155           160
Glu Glu Ala Leu Ser Ser Leu Thr Ser Lys Ala Glu Gly Leu Glu Lys
165           170           175
Ser Leu Ser Ser Leu Glu Thr Arg Arg Ala Gly Glu Ala Lys Glu Leu
180           185           190
Ala Glu Ala Gln Arg Glu Ala Glu Leu Leu Arg Lys Gln Leu Ser Lys
195           200           205
Thr Gln Glu Asp Leu Glu Ala Gln Val Thr Leu Val Gln Asn Leu Arg
210           215           220
Lys Tyr Val Gly Glu Gln Val Pro Ser Glu Val His Ser Gln Thr Trp
225           230           235           240
Glu Leu Glu Arg Gln Lys Leu Leu Glu Thr Met Gln Leu Leu Gln Glu
245           250           255
Asp Arg Asp Ser Leu His Ala Thr Ala Glu Leu Leu Gln Val Arg Val
260           265           270
Gln Ser Leu Thr His Ile Leu Ala Leu Gln Glu Glu Glu Leu Thr Arg
275           280           285
Lys Val Gln Pro Ser Asp Ser Leu Glu Pro Glu Phe Thr Arg Lys Cys
290           295           300
Gln Ser Leu Leu Asn Arg Trp Arg Glu Lys Val Phe Ala Leu Met Val
305           310           315           320
Gln Leu Lys Ala Gln Glu Leu Glu His Ser Asp Ser Val Lys Gln Leu
325           330           335
Lys Gly Gln Val Ala Ser Leu Gln Glu Lys Val Thr Ser Gln Ser Gln
340           345           350
Glu Gln Ala Ile Leu Gln Arg Ser Leu Gln Asp Lys Ala Ala Glu Val
355           360           365
Glu Val Glu Arg Met Gly Ala Lys Gly Leu Gln Leu Glu Leu Ser Arg

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      370              375              380
Ala Gln Glu Ala Arg Arg Trp Trp Gln Gln Gln Thr Ala Ser Ala Glu
385              390              395              400
Glu Gln Leu Arg Leu Val Val Asn Ala Val Ser Ser Ser Gln Ile Trp
      405              410              415
Leu Glu Thr Thr Met Ala Lys Val Glu Gly Ala Ala Ala Gln Leu Pro
      420              425              430
Ser Leu Asn Asn Arg Leu Ser Tyr Ala Val Arg Lys Val His Thr Ile
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Arg Gly Leu Ile Ala Arg Lys Leu Ala Leu Ala Gln Leu Arg Gln Glu
      450              455              460
Ser Cys Pro Leu Pro Pro Val Thr Asp Val Ser Leu Glu Leu Gln
465              470              475              480
Gln Leu Arg Glu Glu Arg Asn Arg Leu Asp Ala Glu Leu Gln Leu Ser
      485              490              495
Ala Arg Leu Ile Gln Gln Glu Val Gly Arg Ala Arg Glu Gln Gly Glu
      500              505              510
Ala Glu Arg Gln Gln Leu Ser Lys Val Ala Gln Gln Leu Glu Gln Glu
      515              520              525
Leu Gln Gln Thr Gln Glu Ser Leu Ala Ser Leu Gly Leu Gln Leu Glu
      530              535              540
Val Ala Arg Gln Gly Gln Gln Glu Ser Thr Glu Glu Ala Ala Ser Leu
545              550              555              560
Arg Gln Glu Leu Thr Gln Gln Gln Glu Leu Tyr Gly Gln Ala Leu Gln
      565              570              575
Glu Lys Val Ala Glu Val Glu Thr Arg Leu Arg Glu Gln Leu Ser Asp
      580              585              590
Thr Glu Arg Arg Leu Asn Glu Ala Arg Arg Glu His Ala Lys Ala Val
      595              600              605
Val Ser Leu Arg Gln Ile Gln Arg Arg Ala Ala Gln Glu Lys Glu Arg
      610              615              620
Ser Gln Glu Leu Arg Arg Leu Gln Glu Glu Ala Arg Lys Glu Glu Gly
625              630              635              640
Gln Arg Leu Ala Arg Arg Leu Gln Glu Leu Glu Arg Asp Lys Asn Leu
      645              650              655
Met Leu Ala Thr Leu Gln Gln Glu Gly Leu Leu Ser Arg Tyr Lys Gln
      660              665              670
Gln Arg Leu Leu Thr Val Leu Pro Ser Leu Leu Asp Lys Lys Ser
      675              680              685
Val Val Ser Ser Pro Arg Pro Pro Glu Cys Ser Ala Ser Ala Pro Val
      690              695              700
Ala Ala Ala Val Pro Thr Arg Glu Ser Ile Lys Gly Ser Leu Ser Val
705              710              715              720
Leu Leu Asp Asp Leu Gln Asp Leu Ser Glu Ala Ile Ser Lys Glu Glu
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Ala Val Cys Gln Gly Asp Asn Leu Asp Arg Cys Ser Ser Ser Asn Pro
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Gln Met Ser Ser
755

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<210> 4739

<211> 684

<212> DNA

<213> Homo sapiens

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 tagccctctc tcctgctcct ttaaactctg aacttctagg atgggagaat gggaaacttt
 180
 gcaggtttag attcatagt aaatcgggtc aagaagtgat cagatgcaaa gcacaggggc
 240
 gttcattact ataccatggc tgaggctctc ctgggcacca ggccctgggc tcagcacttg
 300
 gctcagctctg caccctggac cctgccagag cctccacag caggtgctct caggcaaggc
 360
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 420
 ccaagcagga gggaaccatt agcagcctga ggagctggct ggctgggagc ctccggggacc
 480
 gccccagcct gtcccagct caccacaag atgtggacag ctcttgtgct catttggatt
 540
 ttctctcttg cttatctga aagccatgag gcattccaac atccacgtaa gtgagaaagc
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 660
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 684

<210> 4740
 <211> 119
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Trp Leu Ser Asp Lys Asp Lys Glu Lys Ile Gln Met Ser Thr Arg Ala
 35 40 45
 Val His Ile Leu Trp Val Ser Trp Glu Gln Gly Trp Ala Val Pro Glu
 50 55 60
 Ala Pro Ser Gln Pro Ala Pro Gln Ala Ala Asn Gly Ser Leu Leu Leu
 65 70 75 80
 Gly Gln Gly Ile Cys Gly Gln Glu Ser Thr Leu Val Arg Arg Arg Leu
 85 90 95
 Ala Ser Asn Thr Gln Pro Cys Leu Arg Ala Pro Ala Val Glu Gly Ser
 100 105 110
 Gly Arg Val Gln Gly Ala Asp
 115

<210> 4741
 <211> 411
 <212> DNA
 <213> Homo sapiens

<400> 4741
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 tttttttctta aaaaaaaaa aggggttttt ctttgccccc cccgttcccc ccccttcccc
 120
 ttccgaaaaa aagaggggaa ttttttaaaa aaccgaaaag gggggaagg ggggggtata
 180
 aaagataaaa ttgtgttttt tgggggggaa aatttggaac cccacccttc ggggtttttt
 240
 tccccacccc aaaaaatttt aaaagggggc cctaaaaaaa attttttctt taattttcaa
 300
 ataaaaaaa aatgggggttc caaaatcatt gaaaaatagg ggggactcca aaaccttgaa
 360
 tttttccaaag ggggaccact aaaatttacc ctttttttgg ggttttgggg g
 411

<210> 4742
 <211> 109
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Pro Glu Gly Gly Val Ser Lys Phe Ser Pro Pro Lys Asn Gln Ile Leu
 35 40 45
 Ser Phe Ile Pro Pro Pro Phe Pro Pro Phe Gly Phe Phe Lys Lys Phe
 50 55 60
 Pro Ser Phe Phe Arg Lys Gly Lys Gly Gly Glu Arg Gly Gly Gln Arg
 65 70 75 80
 Lys Thr Pro Phe Phe Leu Arg Lys Lys Arg Glu Lys Lys Lys Lys
 85 90 95
 Lys Glu Arg Lys Thr Pro Val Asp Leu Arg Glu Val Asn
 100 105

<210> 4743
 <211> 473
 <212> DNA
 <213> Homo sapiens

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 caaccggccc cacaaattct agcagtgcca agaagaagga taaaagagtt caaggtggaa
 120
 gaggtagattg gtcccggtat ctgcagtatg aaaagaagac aacccaaaag gctctgcag
 180
 gagatgggtc acagaccga gggagatgt ctgaaggtgg aaggaaatcc agcctgctcc
 240
 agaaaaagcaa agcagatagc agtggggctg gaaaggggtga cctgcagtc acgttgctgg
 300

aaggcgctgg cacagctcca cctgacctgg atctctctgc tattaatgac aaaagcatcg
 360
 tcaaaaagac gccacagtta gcaaaaacaa tatcaaagaa acctgagtca acatcatctt
 420
 ctgccccctcg gaaaaagagc ccggatttat ctgaagcgaa tggaatgatg gag
 473

<210> 4744
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 4744
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 20 25 30
 Arg Val Ile Glu Ser Arg Tyr Leu Gln Tyr Glu Lys Lys Thr Thr Gln
 35 40 45
 Lys Ala Pro Ala Gly Asp Gly Ser Gln Thr Arg Gly Lys Met Ser Glu
 50 55 60
 Gly Gly Arg Lys Ser Ser Leu Leu Gln Lys Ser Lys Ala Asp Ser Ser
 65 70 75 80
 Gly Val Gly Lys Gly Asp Leu Gln Ser Thr Leu Leu Glu Gly His Gly
 85 90 95
 Thr Ala Pro Pro Asp Leu Asp Leu Ser Ala Ile Asn Asp Lys Ser Ile
 100 105 110
 Val Lys Lys Thr Pro Gln Leu Ala Lys Thr Ile Ser Lys Lys Pro Glu
 115 120 125
 Ser Thr Ser Phe Ser Ala Pro Arg Lys Lys Ser Pro Asp Leu Ser Glu
 130 135 140
 Ala Asn Gly Met Met Glu
 145 150

<210> 4745
 <211> 666
 <212> DNA
 <213> Homo sapiens

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 120
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 180
 caaagaggta ctacagaaat aggtatgata ggatcaaagc ctttctcaac agttaagtac
 240
 aaaaatgagg gtccagatta tagactctac aagagtgaac cagagttaac aacagtggca
 300
 gaagttgatg aatctaattg agaagaaaaa tcagaacctg tttcagagat agaaaactca
 360
 gttgttaaag gtteccactt tctgttgga gtagtccctc caagagcaaa atcaccaaca
 420

cccgaaatcctt cgacaatagc ttcctatgta accttgagga aaactaagaa gatgatggat
 480
 ctaagaacgg aaagaccaag aagtgacgtg gaacagctct gtttggtgta aagtactcga
 540
 ccaaggatga ctgtggaaga gcaaatggaa agaataagaa gatatcaaca agcgtgcctg
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 agggagaaga aaaaagggtt aaatgttatc ggtgcttcag accagtcacc cttacaaagg
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 ccttaa
 666

<210> 4746

<211> 221

<212> PRT

<213> Homo sapiens

<400> 4746

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	20						25					30			
Ser	Ala	Gly	Ile	Gln	Arg	Ala	Gln	Ile	Gln	Lys	Glu	Leu	Trp	Arg	Ile
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Gln	Asp	Val	Met	Glu	Gly	Leu	Ser	Lys	His	Lys	Gln	Gln	Arg	Gly	Thr
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Thr	Glu	Ile	Gly	Met	Ile	Gly	Ser	Lys	Pro	Phe	Ser	Thr	Val	Lys	Tyr
	65				70				75					80	
Lys	Asn	Glu	Gly	Pro	Asp	Tyr	Arg	Leu	Tyr	Lys	Ser	Glu	Pro	Glu	Leu
		85						90						95	
Thr	Thr	Val	Ala	Glu	Val	Asp	Glu	Ser	Asn	Gly	Glu	Glu	Lys	Ser	Glu
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Pro	Val	Ser	Glu	Ile	Glu	Thr	Ser	Val	Val	Lys	Gly	Ser	His	Phe	Pro
	115					120					125				
Val	Gly	Val	Val	Pro	Pro	Arg	Ala	Lys	Ser	Pro	Thr	Pro	Glu	Ser	Ser
	130					135				140					
Thr	Ile	Ala	Ser	Tyr	Val	Thr	Leu	Arg	Lys	Thr	Lys	Lys	Met	Met	Asp
	145				150					155				160	
Leu	Arg	Thr	Glu	Arg	Pro	Arg	Ser	Ala	Val	Glu	Gln	Leu	Cys	Leu	Ala
		165						170					175		
Glu	Ser	Thr	Arg	Pro	Arg	Met	Thr	Val	Glu	Glu	Gln	Met	Glu	Arg	Ile
	180					185							190		
Arg	Arg	Tyr	Gln	Gln	Ala	Cys	Leu	Arg	Glu	Lys	Lys	Lys	Gly	Leu	Asn
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	210					215						220			

<210> 4747

<211> 1091

<212> DNA

<213> Homo sapiens

<400> 4747

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 240
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 420
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 720
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 780
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 840
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 960
 tggggaggcc ttggcctgtg acagcccccga ggctgggggg cacagatccc cccagcaagg
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<210> 4748

<211> 273

<212> PRT

<213> Homo sapiens

<400> 4748

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 20 25 30
 Thr Gly Ser Ser Pro Arg Gly Pro Gly Cys Ser Leu Arg His Phe Ala
 35 40 45
 Cys Glu Gln Asn Leu Leu Ser Arg Pro Asp Gly Ser Ala Ser Phe Leu
 50 55 60
 Gln Gly Asp Thr Ser Val Leu Ala Gly Val Tyr Gly Pro Ala Glu Val
 65 70 75 80
 Lys Val Ser Lys Glu Ile Phe Asn Lys Ala Thr Leu Glu Val Ile Leu

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      85              90              95
Arg Pro Lys Ile Gly Leu Pro Ala Gly Val Ser Gly Trp Gln Ser Gly
      100              105              110
Leu Ala Phe Phe Pro Leu Glu Ser Ser Ile Ile Pro Ala Gly Val Ala
      115              120              125
Glu Lys Ser Arg Glu Arg Leu Ile Arg Asn Thr Cys Glu Ala Val Val
      130              135              140
Leu Gly Thr Leu His Pro Arg Thr Ser Ile Thr Val Val Leu Gln Val
      145              150              155              160
Val Ser Asp Ala Gly Ser Leu Leu Ala Cys Cys Leu Asn Ala Ala Cys
      165              170              175
Met Ala Leu Val Asp Ala Gly Val Pro Met Arg Ala Leu Phe Cys Gly
      180              185              190
Val Ala Cys Ala Leu Asp Ser Asp Gly Thr Leu Val Leu Asp Pro Thr
      195              200              205
Ser Lys Gln Glu Lys Glu Ala Arg Ala Val Leu Thr Phe Ala Leu Asp
      210              215              220
Ser Val Glu Arg Lys Leu Leu Met Ser Ser Thr Lys Gly Leu Tyr Ser
      225              230              235              240
Asp Thr Glu Leu Gln Gln Cys Leu Ala Ala Ala Gln Ala Ala Ser Gln
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Ser

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<210> 4749

<211> 2196

<212> DNA

<213> Homo sapiens

<400> 4749

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acgctgttgt cagtagtggt ggcggttcct gcgggtgtgc tgacgctagt cttctggaag
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420
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660

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2100
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2196

<210> 4750

<211> 276
 <212> PRT
 <213> Homo sapiens

<400> 4750
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 Gln Glu Leu Gln Gln Thr Asp Pro Thr Leu Ser Val Val Ala
 35 40 45
 Val Leu Ala Val Leu Leu Thr Leu Val Phe Trp Lys Leu Ile Arg Ser
 50 55 60
 Arg Arg Ser Ser Gln Arg Ala Val Leu Leu Val Gly Leu Cys Asp Ser
 65 70 75 80
 Gly Lys Thr Leu Leu Phe Val Arg Leu Leu Thr Gly Leu Tyr Arg Asp
 85 90 95
 Thr Gln Thr Ser Ile Thr Asp Ser Cys Ala Val Tyr Arg Val Asn Asn
 100 105 110
 Asn Arg Gly Asn Ser Leu Thr Leu Ile Asp Leu Pro Gly His Glu Ser
 115 120 125
 Leu Arg Leu Gln Phe Leu Glu Arg Phe Lys Ser Ser Ala Arg Ala Ile
 130 135 140
 Val Phe Val Val Asp Ser Ala Ala Phe Gln Arg Glu Val Lys Asp Val
 145 150 155 160
 Ala Glu Phe Leu Tyr Gln Val Leu Ile Asp Ser Met Gly Leu Lys Asn
 165 170 175
 Thr Pro Ser Phe Leu Ile Ala Cys Asn Lys Gln Asp Ile Ala Met Ala
 180 185 190
 Lys Ser Ala Lys Leu Ile Gln Gln Gln Leu Glu Lys Glu Leu Asn Thr
 195 200 205
 Leu Arg Val Thr Arg Ser Ala Ala Pro Ser Thr Leu Asp Ser Ser Ser
 210 215 220
 Thr Ala Pro Ala Gln Leu Gly Lys Lys Gly Lys Glu Phe Glu Phe Ser
 225 230 235 240
 Gln Leu Pro Leu Lys Val Glu Phe Leu Glu Cys Ser Ala Lys Gly Gly
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 Arg Gly Asp Val Gly Ser Ala Asp Ile Gln Asp Leu Glu Lys Trp Leu
 260 265 270
 Ala Lys Ile Ala
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<210> 4751
 <211> 2777
 <212> DNA
 <213> Homo sapiens

<400> 4751
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 actttcttcc acaggttcga cccaagcctg tggccagaa taacattcct attgccccca
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240
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 1860
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<212> PRT

<213> Homo sapiens

<400> 4752

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165      170      175
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<212> DNA

<213> Homo sapiens

<400> 4753

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<211> 748

<212> PRT

<213> Homo sapiens

<400> 4754

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<211> 2093

<212> DNA

<213> Homo sapiens

<400> 4755

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<211> 188

<212> PRT

<213> Homo sapiens

<400> 4756

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<211> 272

<212> DNA

<213> Homo sapiens

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<211> 90

<212> PRT

<213> Homo sapiens

<400> 4758

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Leu	Glu	Ala	Pro	Ala	Ser	Gly	Leu	Ala	Phe	His	Pro	Ala	Arg	Asp	Leu
			20				25					30			
Leu	Ala	Ala	Gly	Asp	Val	Asp	Gly	Asp	Val	Phe	Val	Phe	Ser	Tyr	Ser
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Cys	Gln	Glu	Gly	Glu	Thr	Lys	Glu	Leu	Val	Ile	Arg	Ser	His	Leu	Lys
	50				55					60					
Ala	Cys	Arg	Ala	Val	Ala	Phe	Ser	Glu	Asp	Gly	Gln	Lys	Leu	Ile	Thr
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<210> 4759

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4759

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<210> 4760

<211> 78

<212> PRT

<213> Homo sapiens

<400> 4760

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 20 25 30
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 35 40 45
 Phe Leu Pro Leu Trp Asp Val Ala Ala Thr Asp Phe Gly Gln Thr Asn
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 Gln Lys Phe Gly Phe Glu Leu Gly Pro Val Cys Phe Ser Ser
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<210> 4761

<211> 3973

<212> DNA

<213> Homo sapiens

<400> 4761

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<210> 4762

<211> 251

<212> PRT

<213> Homo sapiens

<400> 4762

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			20				25					30			
Lys	Gly	Trp	Pro	Pro	Lys	Tyr	Ser	Thr	Trp	Glu	Pro	Glu	Glu	His	Ile
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Leu	Asp	Pro	Arg	Leu	Val	Met	Ala	Tyr	Glu	Glu	Lys	Glu	Glu	Arg	Asp
	50					55				60					
Arg	Ala	Ser	Gly	Tyr	Arg	Lys	Arg	Gly	Pro	Lys	Pro	Lys	Arg	Leu	Leu
65				70				75						80	
Leu	Gln	Arg	Leu	Tyr	Ser	Met	Asp	Leu	Arg	Ser	Ser	His	Lys	Ala	Lys
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Gly	Lys	Glu	Lys	Leu	Cys	Phe	Ser	Leu	Thr	Cys	Pro	Leu	Gly	Ser	Gly
			100					105					110		
Ser	Pro	Glu	Gly	Val	Val	Lys	Ala	Gly	Ala	Pro	Glu	Leu	Val	Asp	Lys
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Gly	Pro	Leu	Val	Pro	Thr	Leu	Pro	Phe	Pro	Leu	Arg	Lys	Pro	Arg	Lys
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Ala	His	Lys	Tyr	Leu	Arg	Leu	Ser	Arg	Lys	Lys	Phe	Pro	Pro	Arg	Gly
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Pro	Asn	Leu	Glu	Ser	His	Ser	His	Arg	Arg	Glu	Leu	Phe	Leu	Gln	Glu
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Ala	Gln	Pro	Pro	Glu	Glu	Glu	Ala	Asp	Ala	Asp	Leu	Ala	Glu	Gly	Pro
		195					200				205				
Pro	Pro	Trp	Thr	Pro	Ala	Leu	Pro	Ser	Ser	Glu	Val	Thr	Val	Thr	Asp
	210				215					220					
Ile	Thr	Ala	Asn	Ser	Ile	Thr	Val	Thr	Phe	Arg	Glu	Ala	Gln	Ala	Ala
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<210> 4763

<211> 2158

<212> DNA

<213> Homo sapiens

<400> 4763

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<210> 4764

<211> 719

<212> PRT

<213> Homo sapiens

<400> 4764

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 35 40 45
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 Asp Glu Ile Lys Gln Glu Glu Thr Cys Lys Arg Ile Ser Thr Ile
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 Gln Ile Glu Glu Pro Asp Pro Pro Glu Met Glu Thr Ser Leu Asp Ser

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195      200      205
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210      215      220
Asp Lys Arg Pro Pro Ile Leu Glu Cys Leu Glu Lys Leu Glu Lys Ser
225      230      235
Lys Lys Thr Phe Leu Asp Lys Asp Ala Gln Arg Leu Ser Pro Ile Pro
245      250      255
Glu Glu Val Pro Lys Ser Thr Leu Glu Ser Glu Lys Pro Gly Ser Pro
260      265      270
Glu Ala Ala Glu Thr Ser Pro Pro Ser Asn Ile Ile Asp His Cys Glu
275      280      285
Lys Leu Ala Ser Glu Lys Glu Val Val Glu Cys Gln Ser Thr Ser Thr
290      295      300
Val Gly Gly Gln Ser Val Lys Lys Val Asp Leu Glu Thr Leu Lys Glu
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Asp Ser Glu Phe Thr Lys Val Glu Met Asp Asn Leu Asp Asn Ala Gln
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370      375      380
Thr Ile Arg Ile Ser Ser Arg Lys Lys Lys Pro Asp Ser Pro Pro Lys
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405      410      415
Lys Thr Asn Val Gly Arg Thr Leu Arg Arg Ser Pro Arg Ile Ser Arg
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Pro Thr Ala Lys Val Ala Glu Ile Arg Asp Gln Lys Ala Asp Lys Lys
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Arg Gly Glu Gly Glu Asp Glu Val Glu Glu Glu Ser Thr Ala Leu Gln
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Lys Thr Asp Lys Lys Glu Ile Leu Lys Lys Ser Glu Lys Asp Thr Asn
465      470      475
Ser Lys Val Ser Lys Val Lys Pro Xaa Lys Ala Lys Phe Asp Gly Leu
485      490      495
Val Leu Gly His Val Ala Asp Gly Asn Ile Pro Ala Met Met Lys Val
500      505      510
Lys Gly Leu Ala Val Lys Asn His Leu Gln Leu Gln Lys Arg Arg Lys
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545      550      555
Ser Cys Asp Ser Gly Tyr His Thr Ala Cys Leu Arg Pro Pro Leu Met
565      570      575
Ile Ile Pro Asp Gly Glu Trp Phe Cys Pro Pro Cys Gln His Lys Leu
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Lys Lys Lys Glu Arg Ala Glu Arg Arg Lys Glu Arg Leu Val Tyr Val

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Leu Leu Glu Arg Arg Ser Thr Arg Thr Arg Lys Cys Ile Ser Tyr Arg
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Phe Asp Glu Phe Asp Glu Ala Ile Asp Glu Ala Ile Glu Asp Asp Ile
        675                680                685
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<210> 4765

<211> 1707

<212> DNA

<213> Homo sapiens

<400> 4765

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1020

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 1560
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<210> 4766

<211> 280

<212> PRT

<213> Homo sapiens

<400> 4766

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 35 40 45
 Pro Val Ala Leu Thr Leu Leu Thr Leu Cys Leu Val Leu Leu Ile Gly
 50 55 60
 Leu Ala Ala Leu Gly Leu Leu Phe Phe Gln Tyr Tyr Gln Leu Ser Asn
 65 70 75 80
 Thr Gly Gln Asp Thr Ile Ser Gln Met Glu Glu Arg Leu Gly Asn Thr
 85 90 95
 Ser Gln Glu Leu Gln Ser Leu Gln Val Gln Asn Ile Lys Leu Ala Gly
 100 105 110
 Ser Leu Gln His Val Ala Glu Lys Leu Cys Arg Glu Leu Tyr Asn Lys
 115 120 125
 Ala Gly Ala His Arg Cys Ser Pro Cys Thr Glu Gln Trp Lys Trp His
 130 135 140
 Gly Asp Asn Cys Tyr Gln Phe Tyr Lys Asp Ser Lys Ser Trp Glu Asp
 145 150 155 160
 Cys Lys Tyr Phe Cys Leu Ser Glu Asn Ser Thr Met Leu Lys Ile Asn
 165 170 175
 Lys Gln Glu Asp Leu Glu Phe Ala Ala Ser Gln Ser Tyr Ser Glu Phe

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      180              185              190
Phe Tyr Ser Tyr Trp Thr Gly Leu Leu Arg Pro Asp Ser Gly Lys Ala
      195              200              205
Trp Leu Trp Met Asp Gly Thr Pro Phe Thr Ser Glu Leu Phe His Ile
      210              215              220
Ile Ile Asp Val Thr Ser Pro Arg Ser Arg Asp Cys Val Ala Ile Leu
      225              230              235              240
Asn Gly Met Ile Phe Ser Lys Asp Cys Lys Glu Leu Lys Arg Cys Val
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Cys Glu Arg Arg Ala Gly Met Val Lys Pro Glu Ser Leu His Val Pro
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Pro Glu Thr Leu Gly Glu Gly Asp
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<210> 4767
<211> 1380
<212> DNA
<213> Homo sapiens

<400> 4767
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420
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780
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900
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1020

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 1260
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<210> 4768

<211> 460

<212> PRT

<213> Homo sapiens

<400> 4768

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			20					25					30		
Asp	Phe	Ser	Glu	Ala	Asp	Leu	Val	Asp	Val	Ser	Ala	Tyr	Ser	Gly	Leu
		35				40					45				
Gly	Glu	Asp	Ser	Ala	Gly	Ser	Ala	Leu	Glu	Glu	Asp	Asp	Glu	Asp	Asp
		50				55					60				
Glu	Gly	Asp	Gly	Glu	Pro	Pro	Tyr	Glu	Pro	Glu	Ser	Gly	Cys	Val	Glu
65				70					75					80	
Ile	Pro	Gly	Leu	Ser	Glu	Glu	Glu	Asp	Pro	Ala	Pro	Ser	Arg	Lys	Ile
			85						90				95		
His	Phe	Ser	Thr	Ala	Pro	Ile	Gln	Val	Phe	Ser	Thr	Tyr	Ser	Asn	Glu
			100					105					110		
Asp	Tyr	Asp	Arg	Arg	Asn	Glu	Asp	Val	Asp	Pro	Met	Ala	Ala	Ser	Ala
		115				120					125				
Glu	Tyr	Glu	Leu	Glu	Lys	Arg	Val	Glu	Arg	Leu	Glu	Leu	Phe	Pro	Val
		130				135				140					
Glu	Leu	Glu	Lys	Asp	Ser	Glu	Gly	Leu	Gly	Ile	Ser	Ile	Ile	Gly	Met
145				150					155					160	
Gly	Ala	Gly	Ala	Asp	Met	Gly	Leu	Glu	Lys	Leu	Gly	Ile	Phe	Val	Lys
			165					170					175		
Thr	Val	Thr	Glu	Gly	Gly	Ala	Ala	His	Arg	Asp	Gly	Arg	Ile	Gln	Val
			180					185					190		
Asn	Asp	Leu	Leu	Val	Glu	Val	Asp	Gly	Thr	Ser	Leu	Val	Gly	Val	Thr
		195				200					205				
Gln	Ser	Phe	Ala	Ala	Ser	Val	Leu	Arg	Asn	Thr	Lys	Gly	Arg	Val	Arg
		210				215				220					
Phe	Met	Ile	Gly	Arg	Glu	Arg	Pro	Gly	Glu	Gln	Ser	Glu	Val	Ala	Gln
225				230					235					240	
Leu	Ile	Gln	Gln	Thr	Leu	Glu	Gln	Glu	Arg	Trp	Gln	Arg	Glu	Met	Met
			245					250					255		
Glu	Gln	Arg	Tyr	Ala	Gln	Tyr	Gly	Glu	Asp	Asp	Glu	Glu	Thr	Gly	Glu
			260					265					270		
Tyr	Ala	Thr	Asp	Glu	Asp	Glu	Glu	Leu	Ser	Pro	Thr	Phe	Pro	Gly	Gly


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      275              280              285
Glu Met Ala Ile Glu Val Phe Glu Leu Ala Glu Asn Glu Asp Ala Leu
290              295              300
Ser Pro Val Asp Met Glu Pro Glu Lys Leu Val His Lys Phe Lys Glu
305              310              315              320
Leu Gln Ile Lys His Ala Val Thr Glu Ala Glu Ile Gln Gln Leu Lys
              325              330              335
Arg Lys Leu Gln Ser Leu Glu Gln Glu Lys Gly Arg Trp Arg Val Glu
              340              345              350
Lys Ala Gln Leu Glu Gln Ser Val Glu Glu Asn Lys Glu Arg Met Glu
              355              360              365
Lys Leu Glu Gly Tyr Trp Gly Glu Ala Gln Ser Leu Cys Gln Ala Val
              370              375              380
Asp Glu His Leu Arg Glu Thr Gln Ala Gln Tyr Gln Ala Leu Glu Arg
385              390              395              400
Lys Tyr Ser Lys Ala Lys Arg Leu Ile Lys Asp Tyr Gln Gln Lys Glu
              405              410              415
Ile Glu Phe Leu Lys Lys Glu Thr Ala Gln Arg Arg Val Leu Glu Glu
              420              425              430
Ser Glu Leu Ala Arg Lys Glu Glu Met Asp Lys Leu Leu Asp Lys Ile
              435              440              445
Ser Glu Leu Glu Gly Asn Leu Gln Thr Leu Arg Asn
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<210> 4769

<211> 1533

<212> DNA

<213> Homo sapiens

<400> 4769

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180
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240
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420
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480
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600
caagaagacc gttgcagtcc agagatgaga aactggacca gaggcaaatc atgaacagaa
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720

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<210> 4770

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4770

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 20 25 30
 Leu Ser Val Leu Thr Glu Cys Ala Arg Met His Arg Pro Ala Arg Lys
 35 40 45
 Phe Leu Lys Ala Gln Val Leu Pro Pro Leu Arg Asp Val Arg Thr Arg
 50 55 60
 Pro Glu Val Gly Asp Leu Leu Arg Asn Lys Leu Val Arg Leu Met Thr
 65 70 75 80
 His Leu Asp Thr Asp Val Lys Arg Val Ala Ala Glu Phe Leu Phe Val
 85 90 95
 Leu Cys Ser Glu Ser Val Pro Arg Phe Ile Lys Tyr Thr Gly Tyr Gly
 100 105 110
 Asn Ala Ala Gly Leu Leu Ala Ala Arg Gly Leu Met Ala Gly Gly Arg
 115 120 125
 Pro Glu Gly Gln Tyr Ser Glu Asp Glu Asp Thr Asp Thr Asp Glu Tyr
 130 135 140
 Lys Glu Ala Lys Ala Ser Ile Asn Pro Val Thr Gly Arg Val Glu Glu

145		150		155		160									
Lys	Pro	Pro	Asn	Pro	Met	Glu	Gly	Met	Thr	Glu	Glu	Gln	Lys	Glu	His
			165					170						175	
Glu	Ala	Met	Lys	Leu	Val	Thr	Met	Phe	Asp	Lys	Leu	Ser	Ser	Pro	Thr
			180					185					190		
Ala	Pro	Phe	Pro	Asn	Arg	Asn	Arg	Val	Ile	Gln	Pro	Met	Gly	Met	Ser
		195					200					205			
Pro	Arg	Gly	His	Leu	Thr	Ser	Leu	Gln	Asp	Ala	Met	Cys	Glu	Thr	Met
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<210> 4771

<211> 2653

<212> DNA

<213> Homo sapiens

<400> 4771

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720
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1020
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1080

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2520
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2653

<210> 4772
 <211> 182
 <212> PRT
 <213> Homo sapiens

<400> 4772
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 35 40 45
 Lys Pro Asp Val Val Gln Asp Lys Glu Thr Glu Arg Asn Leu Gln Arg
 50 55 60
 Ile Ala Thr Arg Gly Val Val Gln Leu Phe Asn Ala Val Gln Lys His
 65 70 75 80
 Gln Lys Asn Val Asp Glu Lys Val Lys Glu Ala Gly Ser Ser Met Arg
 85 90 95
 Lys Arg Ala Lys Leu Ile Ser Thr Val Ser Lys Lys Asp Phe Ile Ser
 100 105 110
 Val Leu Arg Gly Met Asp Gly Ser Thr Asn Glu Thr Ala Ser Ser Arg
 115 120 125
 Lys Lys Pro Lys Ala Lys Gln Thr Glu Val Lys Ser Glu Glu Gly Pro
 130 135 140
 Gly Trp Thr Ile Leu Arg Asp Asp Phe Met Met Gly Ala Ser Met Lys
 145 150 155 160
 Asp Trp Asp Lys Glu Ser Asp Gly Pro Asp Asp Ser Arg Pro Glu Ser
 165 170 175
 Ala Ser Asp Ser Asp Thr
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<210> 4773
 <211> 319
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 319

<210> 4774
 <211> 91
 <212> PRT

<213> Homo sapiens

<400> 4774

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      20           25           30
Pro Asn Pro Ser Ser Leu Phe Pro Pro Ser Pro Gln Ala Arg Ala Ala
  35           40           45
Met Gly Trp Arg Val Leu Ala Trp Thr Gln His Pro Ile Ser Ser Ala
  50           55           60
Leu Ser Leu Asp Pro Ala Ser His Leu Leu Ser Ser Gln Gly Gly Gly
  65           70           75           80
Ser Trp Glu Pro His Pro Gln Pro Leu His Ala
      85           90
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<210> 4775

<211> 433

<212> DNA

<213> Homo sapiens

<400> 4775

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  120
tgggccttaaa catgaaccaa catggcggat gcttcaagca agtgggggttg ctgggccctta
  180
aagggtggaga ggggtgaaat gaaaagactc gcctcttctt cccccactaa ctcctcctc
  240
tggtctgcact gcctccttg ctatttcttt gaacgtgccca accataccgc gacctcactg
  300
cccttgcaact tgctctctct gcttctccta actatacatg cggtcatcc tgtaacttcc
  360
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  420
ccccgcttaa acg
  433
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<210> 4776

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4776

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Arg Gly Glu Met Lys Arg Leu Ala Ser Ser Pro Thr Asn Ser Leu
      20           25           30
Leu Trp Leu His Cys Pro Pro Cys Tyr Phe Phe Glu Arg Ala Asn His
  35           40           45
Thr Ala Thr Ser Leu Pro Leu His Leu Leu Ser Leu Leu Leu Thr
  50           55           60
Ile His Ala Ala His Pro Val Thr Ser Phe Gln Phe Leu Leu Thr Phe
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65					70					75				80
Leu	Lys	Arg	Pro	Ser	Leu	Thr	Ile	Leu	Phe	Asn	Ile	Pro	Pro	Arg
				85					90					95
Asn														

<210> 4777
 <211> 2200
 <212> DNA
 <213> Homo sapiens

<400> 4777
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 180
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 420
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 660
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 720
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 780
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 840
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 900
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 960
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<211> 144

<212> PRT

<213> Homo sapiens

<400> 4778

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<211> 1241

<212> PRT

<213> Homo sapiens

<400> 4780

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Ala Lys Met Glu Asn Leu Arg Ala Ala Val Pro Gly Gln Pro Leu Ala
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Leu Thr Ala Arg Gly Gly Pro Lys Asp Thr Gln Pro Ser Tyr His His
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Gly Asn Gly Pro Tyr Asn Asp Val Asp Ile Pro Gly Cys Trp Phe Phe
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Lys Leu Pro His Lys Asp Gly Asn Ser Cys Asn Val Gly Ser Pro Phe
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<212> PRT

<213> Homo sapiens

<400> 4786

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Ala	Asp	Pro	Ser	Ala	Phe	Val
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<210> 4787

<211> 1258

<212> DNA

<213> Homo sapiens

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<212> FRT

<213> Homo sapiens

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 Arg Pro Asn His Tyr Leu Leu Ile Asp Thr Gln Gly Val Pro Tyr Thr
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 Val Leu Val Asp Glu Glu Ser Gln Arg Glu Pro Gly Ala Ser Gly Ala
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 Pro Gly Gln Lys Lys Cys Tyr Ser Cys Pro Val Cys Ser Arg Val Phe
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 Glu Tyr Met Ser Tyr Leu Gln Arg His Ser Ile Thr His Ser Glu Val
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 Lys Pro Phe Glu Cys Asp Ile Cys Gly Lys Ala Phe Lys Arg Ala Ser
 115 120 125
 His Leu Ala Arg His His Ser Ile His Leu Ala Gly Gly Gly Arg Pro
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 His Gly Cys Pro Leu Cys Pro Arg Arg Phe Arg Asp Ala Gly Glu Leu
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 Ala Gln His Ser Arg Val His Ser Gly Glu Arg Pro Phe Gln Cys Pro
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<211> 1515

<212> DNA

<213> Homo sapiens

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<211> 241

<212> PRT

<213> Homo sapiens

<400> 4790

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<211> 4481

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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 <211> 1242
 <212> DNA
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<210> 4794

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4794

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<210> 4795

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<210> 4796

<211> 541

<212> PRT

<213> Homo sapiens

<400> 4796

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<210> 4798

<211> 401

<212> PRT

<213> Homo sapiens

<400> 4798

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Gln	Lys	Asn	Ile	Asp	Gln	Gln	Ile	Lys	Thr	Arg	Pro	Arg	Lys	Ile	Lys
				85					90					95	
Lys	Asp	Gly	Lys	Glu	Gly	Ala	Glu	Glu	Ile	Asp	Arg	His	Val	Glu	Arg
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Ser	Phe	Asp	Arg	Glu	Leu	Glu	Arg	Glu	Lys	Glu	Arg	Gln	Arg	Leu	Glu
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Lys	His	Lys	Glu	Asp	Lys	Asp	Asp	Arg	Arg	His	Arg	Asp	Asp	Lys	Arg
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Asp	Ser	Lys	Lys	Glu	Lys	Lys	His	Ser	Arg	Ser	Arg	Ser	Arg	Glu	Arg

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      325              330              335
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      340              345              350
Arg Lys Arg Ser Arg Ser Lys Glu Arg Ser His Lys Arg Asp His Ser
      355              360              365
Asp Ser Lys Asp Gln Ser Asp Lys His Asp Arg Arg Arg Ser Gln Ser
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<210> 4799

<211> 358

<212> DNA

<213> Homo sapiens

<400> 4799

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<210> 4800

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4800

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Pro Pro Cys Gly His Arg Gly Ala Leu Asp Gln Pro His His Arg Val
      35              40              45
Ala Gln Pro His Leu Gln Val Val Arg Gln Arg Ser Pro Pro Ala Ser
      50              55              60
Trp Ser Pro Pro Pro Arg Ala Leu Ser His Val Phe Leu Phe Gly Asp
      65              70              75              80
Arg Pro Phe Trp Trp Val His Glu Ser Gly Tyr Tyr Ser Gln Ala Pro

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<210> 4801
<211> 1447
<212> DNA
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<400> 4801
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<211> 377

<212> PRT

<213> Homo sapiens

<400> 4802

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Ser	Thr	Leu	Gly	Ala	Gly	Ile	Val	Ile	Ala	Glu	Ala	Leu	Gln	Asn	Gln	
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Leu	Ala	Trp	Leu	Glu	Asn	Val	Trp	Leu	Trp	Ile	Thr	Phe	Leu	Gly	Asp	
	50				55						60					
Pro	Lys	Ile	Leu	Phe	Leu	Phe	Tyr	Phe	Pro	Ala	Ala	Tyr	Tyr	Ala	Ser	
65				70					75					80		
Arg	Arg	Val	Gly	Ile	Ala	Val	Leu	Trp	Ile	Ser	Leu	Ile	Thr	Glu	Trp	
			85					90					95			
Leu	Asn	Leu	Ile	Phe	Lys	Trp	Phe	Leu	Phe	Gly	Asp	Arg	Pro	Phe	Trp	
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Trp	Val	His	Glu	Ser	Gly	Tyr	Tyr	Ser	Gln	Ala	Pro	Ala	Gln	Val	His	
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Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser	Pro	Ser	Gly	His	
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Cys	Met	Ile	Thr	Gly	Ala	Ala	Leu	Trp	Pro	Ile	Met	Thr	Ala	Leu	Ser	
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Ser	Gln	Val	Ala	Thr	Arg	Ala	Arg	Ser	Arg	Trp	Val	Arg	Val	Met	Pro	
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Phe	Ile	Leu	Ala	His	Phe	Pro	His	Gln	Val	Leu	Ala	Gly	Leu	Ile	Thr	
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	260					265						270				
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 <212> DNA
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<400> 4803
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120
ccaaaacctgc ctaatgcctg atttccatta cgtgctactc ctcaaatggc agcggcttct
180
gaatattaca gagatggtgt gctgtttgct tttctctttt gttgtagcat aaaactgttc
240
attttagctt agtgacattt gtcaagaata gcaacctttt tgcttccaag ggacttgaag
300
gaagttaaat ttagatgctt tcctctcttc ttattttgtg gaggtatttc ctgttcagta
360
gcaaatcagt tatagaatat attagcattg ttatatatta aactaatgac taatcatttc
420
agcttttatt atactgttgc attttatatt tcacagggag caatagaaaa agtgaaagaa
480
agtgacaaaac tagttgcaac aagtaaaatc accctacaag acaaacagaa catggtgaag
540
agagtcagca tcatgtctta cgcg
564

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<210> 4804
 <211> 53
 <212> PRT
 <213> Homo sapiens

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<400> 4804
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Gln Gly Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr
20              25              30
Ser Lys Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser
35              40              45
Ile Met Ser Tyr Ala
50

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<210> 4805
 <211> 1619

<212> DNA

<213> Homo sapiens

<400> 4805

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360
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420
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480
aaggctgtgc tggcgatcat tgatgaggaa agcagtgga acaatgccc ggctctcacc
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aagtgtgggtg atattcttgg agtaaccagt aaactaccaa aggaccaaca ggaagccaaa
1260
catatccttg agcacgtctt ctccaagtg gtggagttca agaaattgaa ccaggaaacat
1320
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1380
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1440
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1500

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aataactcaga taggtataag atttttcaca aaatcccttat gtaagataca ttccattttt
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 1619

<210> 4806

<211> 438

<212> PRT

<213> Homo sapiens

<400> 4806

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 20 25 30
 Arg Ser Asn Trp Lys Ile Gln Ser Leu Lys Asp Glu Ile Thr Ser Glu
 35 40 45
 Lys Leu Asn Gly Val Lys Leu Trp Ile Thr Ala Gly Pro Arg Glu Lys
 50 55 60
 Phe Thr Ala Ala Glu Phe Glu Ile Leu Lys Lys Tyr Leu Asp Thr Gly
 65 70 75 80
 Gly Asp Val Leu Val Met Leu Gly Glu Gly Glu Ser Arg Phe Asp
 85 90 95
 Thr Asn Ile Asn Phe Leu Leu Glu Glu Tyr Gly Ile Met Val Asn Asn
 100 105 110
 Asp Ala Val Val Arg Asn Val Tyr His Lys Tyr Phe His Pro Lys Glu
 115 120 125
 Ala Leu Val Ser Ser Gly Val Leu Asn Arg Glu Ile Ser Arg Ala Ala
 130 135 140
 Gly Lys Ala Val Leu Ala Ile Ile Asp Glu Glu Ser Ser Gly Asn Asn
 145 150 155 160
 Ala Gln Ala Leu Thr Phe Val Tyr Pro Phe Gly Ala Thr Leu Ser Val
 165 170 175
 Met Lys Pro Ala Val Ala Val Leu Ser Thr Gly Ser Val Cys Phe Pro
 180 185 190
 Leu Asn Arg Pro Ile Leu Ala Phe Tyr His Ser Lys Asn Gln Gly Gly
 195 200 205
 Lys Leu Ala Val Leu Gly Ser Cys His Met Phe Ser Asp Gln Tyr Leu
 210 215 220
 Asp Lys Glu Glu Asn Ser Lys Ile Met Asp Val Val Val Phe Gln Trp
 225 230 235 240
 Leu Thr Thr Gly Asp Ile His Leu Asn Gln Ile Asp Ala Glu Asp Pro
 245 250 255
 Glu Ile Ser Asp Tyr Met Met Leu Pro Tyr Thr Ala Thr Leu Ser Lys
 260 265 270
 Arg Asn Arg Glu Cys Leu Gln Glu Ser Asp Glu Ile Pro Arg Asp Phe
 275 280 285
 Thr Thr Leu Phe Asp Leu Ser Ile Phe Gln Leu Asp Thr Thr Ser Phe
 290 295 300
 His Ser Val Ile Glu Ala His Glu Gln Leu Asn Val Lys His Glu Pro
 305 310 315 320
 Leu Gln Leu Ile Gln Pro Gln Phe Glu Thr Pro Leu Pro Thr Leu Gln
 325 330 335
 Pro Ala Val Phe Pro Pro Ser Phe Arg Glu Leu Pro Pro Pro Pro Leu

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          340          345          350
Glu Leu Phe Asp Leu Asp Glu Thr Phe Ser Ser Glu Lys Ala Arg Leu
          355          360          365
Ala Gln Ile Thr Asn Lys Cys Thr Glu Glu Asp Leu Glu Phe Tyr Val
          370          375          380
Arg Lys Cys Gly Asp Ile Leu Gly Val Thr Ser Lys Leu Pro Lys Asp
          385          390          395          400
Gln Gln Asp Ala Lys His Ile Leu Glu His Val Phe Phe Gln Val Val
          405          410          415
Glu Phe Lys Lys Leu Asn Gln Glu His Asp Ile Asp Thr Ser Glu Thr
          420          425          430
Ala Phe Gln Asn Asn Phe
          435

<210> 4807
<211> 1177
<212> DNA
<213> Homo sapiens

<400> 4807
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120
agccccgcaa tctgcagacc tcagcggcag cgcaggtgac agacctgcct cctttgcctg
180
tgagtcattg cagctcccat gaatggccaa gtgtgtgtgg tgactgtgtg ctccaggggt
240
attggccgtg gcattgcctt gcagctctgc aaagcaggcg ccacagttaa catcactggc
300
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360
gtgcctgtgg tgtgcgattc aagccaggag agtgaagtgc gaagcctgtt tgagcaagtg
420
gatcgggaac agcaaggcgct tctagatgtg ctgggtcaaca atgcttatgc aggggtccag
480
acgatcctga acaccaggaa taaggcattc tgggaaaccc ctgcctccat gtgggatgat
540
atcaacaacg tcggactcag agggccactac ttttgtcag tgtatggggc acggctgatg
600
gtaccagctg gccaggggct catcgtggtc atctctccc cagggaagct gcagtatatg
660
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720
cacgagctgc ggcgcatggt ggtcagctgt gtgtctctgt ggcggggagt tgtgcagaca
780
gaactgtctg aggagcatat ggcaaggag gaggtcctgc aggatcctgt gttgaagcag
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ttggcaacag atcccaatat cctgagcctg agtggttaagg tgctgccatc ctgtgacctt
960
gctcgacgct atggccttcg ggaatgtggac ggccgccccg tccaagacta tttgtctttg
1020

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agctctgttc tctcacagct gtcgggcctg ggctggctgg cctcctacct gccctccttc
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 1177

<210> 4808

<211> 313

<212> PRT

<213> Homo sapiens

<400> 4808

Met Ala Ala Pro Met Asn Gly Gln Val Cys Val Val Thr Gly Ala Ser
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 20 25 30
 Thr Val Tyr Ile Thr Gly Arg His Leu Asp Thr Leu Arg Val Val Ala
 35 40 45
 Gln Glu Ala Gln Ser Leu Gly Gly Gln Cys Val Pro Val Val Cys Asp
 50 55 60
 Ser Ser Gln Glu Ser Glu Val Arg Ser Leu Phe Glu Gln Val Asp Arg
 65 70 75 80
 Glu Gln Gln Gly Arg Leu Asp Val Leu Val Asn Asn Ala Tyr Ala Gly
 85 90 95
 Val Gln Thr Ile Leu Asn Thr Arg Asn Lys Ala Phe Trp Glu Thr Pro
 100 105 110
 Ala Ser Met Trp Asp Asp Ile Asn Asn Val Gly Leu Arg Gly His Tyr
 115 120 125
 Phe Cys Ser Val Tyr Gly Ala Arg Leu Met Val Pro Ala Gly Gln Gly
 130 135 140
 Leu Ile Val Val Ile Ser Ser Pro Gly Ser Leu Gln Tyr Met Phe Asn
 145 150 155 160
 Val Pro Tyr Gly Val Gly Lys Ala Ala Cys Asp Lys Leu Ala Ala Asp
 165 170 175
 Cys Ala His Glu Leu Arg Arg His Gly Val Ser Cys Val Ser Leu Trp
 180 185 190
 Pro Gly Ile Val Gln Thr Glu Leu Leu Lys Glu His Met Ala Lys Glu
 195 200 205
 Glu Val Leu Gln Asp Pro Val Leu Lys Gln Phe Lys Ser Ala Phe Ser
 210 215 220
 Ser Ala Glu Thr Thr Glu Leu Ser Gly Lys Cys Val Val Ala Leu Ala
 225 230 235 240
 Thr Asp Pro Asn Ile Leu Ser Leu Ser Gly Lys Val Leu Pro Ser Cys
 245 250 255
 Asp Leu Ala Arg Arg Tyr Gly Leu Arg Asp Val Asp Gly Arg Pro Val
 260 265 270
 Gln Asp Tyr Leu Ser Leu Ser Ser Val Leu Ser His Val Ser Gly Leu
 275 280 285
 Gly Trp Leu Ala Ser Tyr Leu Pro Ser Phe Leu Arg Val Pro Lys Trp
 290 295 300
 Ile Ile Ala Leu Tyr Thr Ser Lys Phe
 305 310

<210> 4809
 <211> 999
 <212> DNA
 <213> Homo sapiens

<400> 4809
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 180
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 480
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 660
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 780
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 900
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 999

<210> 4810
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 4810
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 20 25 30
 Ser Gln Pro Gly Cys His Ser Gly Leu Leu Thr Asn Thr Pro Ala Ala
 35 40 45
 Leu Val Pro Ala His Ala Arg Gln Arg Ser Gln Pro Ser Leu Leu Leu

50		55		60
Ser Ser Ser Pro Arg Lys Ser Arg Ser Trp Gln Gly Ser Gly Pro Met				
65	70	75	80	
Trp Pro Gly Pro Gly Tyr Phe Pro Asp Leu Thr Ser Pro Thr Ala Gln				
	85	90	95	
Pro Leu Gln Leu Leu Gly Ala Leu His Gly Cys Ser Phe Pro Pro Pro				
	100	105	110	
Leu Pro Ser Gly Gln Pro Cys Pro				
115	120			

<210> 4811

<211> 3207

<212> DNA

<213> Homo sapiens

<400> 4811

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120
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720
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780
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1080
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1140

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gcacccccct cctctgtcac etccacaccc ggaccccccc ggatggactt ctccccgtgc
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2340
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 3060
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 3207

<210> 4812

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4812

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 20 25 30
 Lys Val Thr Leu Pro Asn Tyr Asp Asn Val Pro Gly Asn Leu Met Leu
 35 40 45
 Ser Ala Leu Gly Leu Arg Leu Gly Asp Arg Val Leu Leu Asp Gly Gln
 50 55 60
 Lys Thr Gly Thr Leu Arg Phe Cys Gly Thr Thr Glu Phe Ala Ser Gly
 65 70 75 80
 Ser Trp Val Gly Val Glu Leu Asp Glu Pro Glu Gly Lys Asn Asp Gly
 85 90 95
 Ser Val Gly Gly Val Arg Tyr Phe Ile Cys Pro Pro Lys Gln Gly Leu
 100 105 110
 Phe Ala Ser Val Ser Lys Ile Ser Lys Ala Val Asp Ala Pro Pro Ser
 115 120 125
 Ser Val Thr Ser Thr Pro Gly Pro Pro Arg Met Asp Phe Ser Arg Val
 130 135 140
 Thr Gly Lys Gly Arg Arg Glu His Lys Gly Lys Lys Lys Thr Pro Ser
 145 150 155 160
 Ser Pro Ser Leu Gly Ser Leu Gln Gln Arg Asp Gly Ala Lys Ala Glu
 165 170 175
 Val Gly Asp Gln Val Leu Val Ala Gly Gln Lys Gln Gly Ile Val Arg
 180 185 190
 Phe Tyr Gly Lys Thr Asp Phe Ala Pro Gly Tyr Trp Tyr Gly Ile Glu
 195 200 205
 Leu Asp Gln Pro Thr Gly Lys His Asp Gly Ser Val Phe Gly Val Arg
 210 215 220
 Tyr Phe Thr Cys Pro Pro Arg His Gly Val Phe Ala Pro Ala Ser Arg
 225 230 235 240
 Ile Gln Arg Ile Gly Gly Ser Thr Asp Ser Pro Gly Asp Ser Val Gly

```

                245                250                255
Ala Lys Lys Val His Gln Val Thr Met Thr Gln Pro Lys Arg Thr Phe
                260                265                270
Thr Thr Val Arg Thr Pro Lys Asp Ile Ala Ser Glu Asn Ser Ile Ser
                275                280                285
Arg Leu Leu Phe Cys Cys Trp Phe Pro Trp Met Leu Arg Ala Glu Met
                290                295                300
Gln Ser
305

<210> 4813
<211> 400
<212> DNA
<213> Homo sapiens

<400> 4813
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120
agtgcagtgt ggtgggaaag gaggcctggg tggtgcagc tttcctctgc aaacctccac
180
ctgcgccaca gggtcttgct tttcctccag ctgtccagga aaccaccatc atgattgtta
240
aacacagatt tgaacattca cgaagaaact tccaggggtg gccaaacctc cttctccccc
300
actgcacctc caagcagcct tcttgaaagg gaaaagagta cagacctgcc ctctggggag
360
ccctgtgccc tgccatgacc agcctttccc cttcacgcgt
400

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<210> 4814
<211> 125
<212> PRT
<213> Homo sapiens

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<400> 4814
Met Ala Gly His Arg Gly Pro Gln Arg Ala Gly Leu Tyr Ser Phe Pro
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Phe Gln Glu Gly Cys Leu Glu Val Gln Trp Gly Gly Arg Gly Phe Gly
20     25     30
Ser Pro Trp Lys Phe Leu Arg Glu Cys Ser Asn Leu Cys Leu Thr Ile
35     40     45
Met Met Val Val Ser Trp Thr Ala Gly Gly Lys Ala Lys Pro Cys Gly
50     55     60
Arg Gly Gly Gly Leu Gln Arg Lys Ala Ala Ala Thr Thr Ala Ser Phe
65     70     75     80
Pro Thr His Ser His Trp Gln Thr Gly Gly Gln Val Gln Ser Pro Lys
85     90     95
Glu Thr Ala Ala Cys Ala Gly His Pro Pro Gly Thr Ala Phe Ser Leu
100    105    110
Ile Leu Pro Val Pro Pro Thr Cys Trp Val Ser Val Ala
115    120    125

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<210> 4815
 <211> 528
 <212> DNA
 <213> Homo sapiens

<400> 4815
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 120
 agcatgtcta caagctctgt acgcaaacga tctgaagggtg aagagaagac attaacaggg
 180
 gacgtgaaaa ccagtcctcc acgaactgca ccaagaagac agctaccttc tattcccaaa
 240
 aatgctttgc ccataactaa gcctacatca cctgccccag cagcacagtc aacaaatggc
 300
 acccatgcct cttacggacc cttctacctg gaatattcac tccttgacga atttaccttg
 360
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 420
 tagtttgag taatattcat acggcatgga ctttaccag atggcgattt taagtttaca
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 528

<210> 4816
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 4816
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 Arg Thr Ala Pro Lys Lys Gln Leu Pro Ser Ile Pro Lys Asn Ala Leu
 35 40 45
 Pro Ile Thr Lys Pro Thr Ser Pro Ala Pro Ala Ala Gln Ser Thr Asn
 50 55 60
 Gly Thr His Ala Ser Tyr Gly Pro Phe Tyr Leu Glu Tyr Ser Leu Leu
 65 70 75 80
 Ala Glu Phe Thr Leu Val Val Lys Gln Lys Leu Pro Gly Val Tyr Val
 85 90 95
 Gln Pro Ser Tyr Arg Ser Ala Leu Met
 100 105

<210> 4817
 <211> 1106
 <212> DNA
 <213> Homo sapiens

<400> 4817
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 1106

<210> 4818

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4818

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 Ser Gln Ala Gly Leu Asn Gln Lys Leu Asn Phe Ile Val Thr Gly Leu
 35 40 45
 Gln Asp Ile Asp Lys Cys Arg Gln Gln Leu His Asp Ile Thr Val Pro
 50 55 60
 Leu Glu Val Phe Glu Tyr Ile Asp Gln Gly Arg Asn Pro Gln Leu Tyr
 65 70 75 80
 Thr Lys Glu Cys Leu Glu Arg Ala Leu Ala Lys Asn Glu Gln Val Lys


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      85              90              95
Gly Lys Ile Asp Thr Met Lys Lys Phe Lys Ser Leu Leu Ile Gln Glu
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Gly Glu Asp His Pro Pro Ser
      130              135

<210> 4819
<211> 1655
<212> DNA
<213> Homo sapiens

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1200

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<210> 4820

<211> 551

<212> PRT

<213> Homo sapiens

<400> 4820

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 35 40 45
 Trp Tyr Glu Leu Ile Leu Ser Leu Asp Ser Thr Arg Trp Arg Gln Leu
 50 55 60
 Cys Leu Gly Cys Thr Glu Cys Arg His Pro Asn Trp Pro Asn Gln Pro
 65 70 75 80
 Asp Val Glu Pro Glu Ser Trp Arg Glu Ala Phe Lys Gln His Tyr Leu
 85 90 95
 Ala Ser Lys Thr Trp Thr Lys Asn Ala Leu Asp Leu Glu Ser Ser Ile
 100 105 110
 Cys Phe Ser Leu Phe Arg Arg Arg Glu Arg Arg Thr Leu Ser Val
 115 120 125
 Gly Pro Gly Arg Glu Phe Asp Ser Leu Gly Ser Ala Leu Ala Met Ala
 130 135 140
 Ser Leu Tyr Asp Arg Ile Val Leu Phe Pro Gly Val Tyr Glu Glu Gln
 145 150 155 160
 Gly Glu Ile Ile Leu Lys Val Pro Val Glu Ile Val Gly Gln Gly Lys
 165 170 175
 Leu Gly Glu Val Ala Leu Leu Ala Ser Ile Asp Gln His Cys Ser Thr
 180 185 190
 Thr Arg Leu Cys Asn Leu Val Phe Thr Pro Ala Trp Phe Ser Pro Ile
 195 200 205
 Met Tyr Lys Thr Thr Ser Gly His Val Gln Phe Asp Asn Cys Asn Phe
 210 215 220
 Glu Asn Gly His Ile Gln Val His Gly Pro Gly Thr Cys Gln Val Lys
 225 230 235 240
 Phe Cys Thr Phe Lys Asn Thr His Ile Phe Leu His Asn Val Pro Leu

245 250 255
 Cys Val Leu Glu Asn Cys Glu Phe Val Gly Ser Glu Asn Asn Ser Val
 260 265 270
 Thr Val Glu Gly His Pro Ser Ala Asp Lys Asn Trp Ala Tyr Lys Tyr
 275 280 285
 Leu Leu Gly Leu Ile Lys Ser Ser Pro Thr Phe Leu Pro Thr Glu Asp
 290 295 300
 Ser Asp Phe Leu Met Ser Leu Asp Leu Glu Ser Arg Asp Gln Ala Trp
 305 310 315 320
 Ser Pro Lys Thr Cys Asp Ile Val Ile Glu Gly Ser Gln Ser Pro Thr
 325 330 335
 Ser Pro Ala Ser Ser Ser Pro Lys Pro Gly Ser Lys Ala Gly Ser Gln
 340 345 350
 Glu Ala Glu Val Gly Ser Asp Gly Glu Arg Val Ala Gln Thr Pro Asp
 355 360 365
 Ser Ser Asp Gly Gly Leu Ser Pro Ser Gly Glu Asp Glu Asp Glu Asp
 370 375 380
 Gln Leu Met Tyr Arg Leu Ser Tyr Gln Val Gln Gly Pro Arg Pro Val
 385 390 395 400
 Leu Gly Gly Ser Phe Leu Gly Pro Pro Leu Pro Gly Ala Ser Ile Gln
 405 410 415
 Leu Pro Ser Cys Leu Val Leu Asn Ser Leu Gln Gln Glu Leu Gln Lys
 420 425 430
 Asp Lys Glu Ala Met Ala Leu Ala Asn Ser Val Gln Gly Cys Leu Ile
 435 440 445
 Arg Lys Cys Leu Phe Arg Asp Gly Lys Gly Gly Val Phe Val Cys Ser
 450 455 460
 His Gly Arg Ala Lys Met Glu Gly Asn Ile Phe Arg Asn Leu Thr Tyr
 465 470 475 480
 Ala Val Arg Cys Ile His Asn Ser Lys Ile Ile Met Leu Arg Asn Asp
 485 490 495
 Ile Tyr Arg Cys Arg Ala Ser Gly Ile Phe Leu Arg Leu Glu Gly Gly
 500 505 510
 Gly Leu Ile Ala Gly Asn Asn Ile Tyr His Asn Ala Glu Ala Gly Val
 515 520 525
 Asp Ile Arg Lys Lys Ser Asn Pro Leu Gln Ile Gly Asn Pro Arg Ala
 530 535 540
 Glu Phe Leu Ala Ser Arg Ala
 545 550

 <210> 4821
 <211> 585
 <212> DNA
 <213> Homo sapiens

 <400> 4821
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 120
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 180
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 240

atggtgacat ctccccggga ggagcagcag ctcttgccca gcacctccaa gcccggtgtg
 300
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 360
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 420
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 480
 aaaatcgccg aggtgtgctg cacctccatt gtctatgcta cggagaagaa gcagaccaag
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 585

<210> 4822

<211> 195

<212> FRT

<213> Homo sapiens

<400> 4822

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Ser	Val	Pro	Leu	Pro	Glu	Ser	Thr	Arg	Glu	Leu	Gly	Glu	Leu	Leu	Gly
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Glu	Ala	Arg	Tyr	Tyr	Leu	Val	Gln	Gly	Leu	Ile	Glu	Asp	Cys	Gln	Leu
			50				55				60				
Ala	Leu	Gln	Gln	Lys	Arg	Glu	Thr	Leu	Ser	Pro	Leu	Cys	Leu	Ile	Pro
65				70					75					80	
Met	Val	Thr	Ser	Pro	Arg	Glu	Glu	Gln	Gln	Leu	Leu	Ala	Ser	Thr	Ser
			85						90					95	
Lys	Pro	Val	Val	Lys	Leu	Leu	His	Asn	Arg	Ser	Asn	Asn	Lys	Tyr	Ser
			100					105					110		
Tyr	Thr	Ser	Thr	Ser	Asp	Asp	Asn	Leu	Leu	Lys	Asn	Ile	Glu	Leu	Phe
			115			120					125				
Asp	Lys	Leu	Ala	Leu	Arg	Phe	His	Gly	Arg	Leu	Leu	Phe	Leu	Lys	Asp
			130			135				140					
Val	Leu	Gly	Asp	Glu	Ile	Cys	Cys	Trp	Ser	Phe	Tyr	Gly	Gln	Gly	Arg
145				150					155					160	
Lys	Ile	Ala	Glu	Val	Cys	Cys	Thr	Ser	Ile	Val	Tyr	Ala	Thr	Glu	Lys
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Lys	Gln	Thr	Lys	Val	Arg	Gly	Ala	Pro	Glu	Pro	Met	Leu	Gly	Ala	Gly
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Gly	Gly	His													
			195												

<210> 4823

<211> 1984

<212> DNA

<213> Homo sapiens

<400> 4823

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180
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540
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600
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720
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780
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1140
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<210> 4824
<211> 547
<212> PRT
<213> Homo sapiens
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4001

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 305 310 315 320
 Met Asn Arg Ile Gly Gly Gly Ile Gly Phe Gly Gly Leu Glu Ala Met
 325 330 335
 Asn Ser Met Gly Gly Phe Gly Gly Val Gly Arg Met Gly Glu Leu Tyr
 340 345 350
 Arg Gly Ala Met Thr Ser Ser Met Glu Arg Asp Phe Gly Arg Gly Asp
 355 360 365
 Ile Gly Ile Asn Arg Ala Phe Gly Asp Ser Phe Gly Arg Leu Gly Ser
 370 375 380
 Ala Met Ile Gly Gly Ile Thr Gly Arg Ile Gly Ser Ser Asn Met Gly
 385 390 395 400
 Pro Val Gly Ser Gly Ile Ser Gly Gly Met Gly Ser Met Asn Ser Val
 405 410 415
 Thr Gly Gly Met Gly Met Gly Leu Asp Arg Met Ser Ser Ser Phe Asp
 420 425 430
 Arg Met Gly Pro Gly Ile Gly Ala Ile Leu Glu Arg Ser Ile Asp Met
 435 440 445
 Asp Arg Gly Phe Leu Ser Gly Pro Met Gly Ser Gly Met Arg Glu Arg
 450 455 460
 Ile Gly Ser Lys Gly Asn Gln Ile Phe Val Arg Asn Leu Pro Phe Asp
 465 470 475 480
 Leu Thr Trp Gln Lys Leu Lys Glu Lys Phe Ser Gln Cys Gly His Val
 485 490 495
 Met Phe Ala Glu Ile Lys Met Glu Asn Gly Lys Ser Lys Gly Cys Gly
 500 505 510
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<210> 4825

<211> 2380

<212> DNA

<213> Homo sapiens

<400> 4825

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 2280
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 2380

<210> 4826

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4826

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			20					25						30	
Ala	Lys	Asn	Asp	Met	Asn	Arg	His	Leu	His	Glu	Tyr	Met	Glu	Met	Cys
			35				40					45			
Ser	Met	Lys	Arg	Gly	Leu	Asp	Val	Gln	Met	Glu	Thr	Cys	Arg	Arg	Leu
	50					55					60				
Ile	Thr	Gln	Ser	Gly	Asp	Arg	Lys	Ser	Pro	Ala	Phe	Thr	Ala	Val	Pro
					70					75				80	
Leu	Ser	Asp	Pro	Pro	Pro	Pro	Pro	Ser	Glu	Ala	Glu	Asp	Ser	Asp	Arg
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			100					105							

<210> 4827

<211> 6277

<212> DNA

<213> Homo sapiens

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<212> PRT

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<400> 4828

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 Met Glu Asp Cys Leu Leu Gly Gly Thr Arg Val Ser Leu Pro Glu Asp
 50 55 60
 Leu Leu Glu Asp Pro Glu Ile Phe Phe Asp Val Val Ser Leu Ser Thr
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 Trp Gln Glu Val Leu Ser Asp Ser Gln Arg Glu His Leu Gln Gln Phe

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 Thr Asp Tyr Val Val Arg Pro Ser Thr Gly Glu Glu Lys Arg Val Phe
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4832

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Leu	Gly	Gly	Gln	Asp	Gln	Leu	Arg	Val	Arg	Val	Thr	Glu	Leu	Glu	Asp	Leu	Gly	Gly	Gln	Asp	Gln	Leu	Arg	Val	Arg	Val	Thr	Glu	Leu	Glu	Asp	Leu	Gly	Gly	Gln	Asp	Gln	Leu	Arg	Val	Arg	Val	Thr	Glu	Leu	Glu	Asp
65										70										75																											
Glu	Val	Arg	Asn	Leu	Arg	Lys	Ile	Asn	Arg	Asp	Leu	Phe	Asp	Phe	Ser	Glu	Val	Arg	Asn	Leu	Arg	Lys	Ile	Asn	Arg	Asp	Leu	Phe	Asp	Phe	Ser	Glu	Val	Arg	Asn	Leu	Arg	Lys	Ile	Asn	Arg	Asp	Leu	Phe	Asp	Phe	Ser
85										90										95																											
Thr	Arg	Phe	Ile	Thr	Arg	Pro	Ala	Lys								Thr	Arg	Phe	Ile	Thr	Arg	Pro	Ala	Lys								Thr	Arg	Phe	Ile	Thr	Arg	Pro	Ala	Lys							
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<210> 4833

<211> 872

<212> DNA

<213> Homo sapiens

<400> 4833

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<210> 4834

<211> 147

<212> PRT

<213> Homo sapiens

<400> 4834

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      20           25           30
Lys Thr Arg Leu Gln Asn Gln His Gly Lys Ala Met Tyr Lys Gly Met
      35           40           45
Ile Asp Cys Leu Met Lys Thr Ala Arg Ala Glu Gly Phe Phe Gly Met
      50           55           60
Tyr Arg Gly Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala
      65           70           75           80
Ile Lys Leu Ala Ala Asn Asp Phe Phe Arg Arg Leu Leu Met Glu Asp
      85           90           95
Gly Met Gln Arg Asn Leu Lys Met Glu Met Leu Ala Gly Cys Gly Ala
      100          105          110
Gly Met Cys Gln Val Val Val Thr Cys Pro Met Glu Met Leu Lys Ile
      115          120          125
Gln Leu Gln Ala Cys Trp Thr Pro Gly Arg Pro Ser Ser Gly Leu Gly
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<210> 4835

<211> 1846

<212> DNA

<213> Homo sapiens

<400> 4835

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780

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<210> 4836

<211> 349

<212> PRT

<213> Homo sapiens

<400> 4836

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His	Met	Tyr	Gln	Leu	His	Lys	Ala	Phe	Ala	Arg	Ala	Glu	Leu	Glu	Arg
			20					25					30		
Thr	Tyr	Gln	Glu	Ile	Gln	Glu	Leu	Gln	Trp	Glu	Ile	Gln	Asn	Thr	Ser
		35					40					45			
His	Leu	Ala	Val	Asp	Gly	Asp	Arg	Ala	Ala	Ala	Trp	Pro	Val	Gly	Ile
		50				55				60					
Pro	Ala	Pro	Ser	Arg	Pro	Ala	Ser	Arg	Phe	Glu	Val	Leu	Arg	Trp	Asp
65				70					75					80	
Tyr	Phe	Thr	Glu	Gln	His	Ala	Phe	Ser	Cys	Ala	Asp	Gly	Ser	Pro	Arg

		85				90			95
Cys	Pro	Leu	Arg	Gly	Ala	Asp	Arg	Ala	Asp
		100				105			110
Thr	Ala	Leu	Glu	Glu	Leu	Asn	Arg	Arg	Tyr
		115				120			125
Gln	Lys	Gln	Gln	Leu	Val	Asn	Gly	Tyr	Arg
		130				135			140
Gly	Met	Glu	Tyr	Thr	Leu	Asp	Leu	Gln	Leu
		145				150			155
Gly	Gly	Arg	Arg	Pro	Leu	Thr	Arg	Val	Gln
		165				170			175
Ser	Arg	Val	Glu	Ile	Leu	Pro	Val	Pro	Tyr
		180				185			190
Leu	Thr	Val	Leu	Leu	Pro	Leu	Ala	Ala	Glu
		195				200			205
Gly	Phe	Leu	Glu	Ala	Phe	Ala	Thr	Ala	Ala
		210				215			220
Ala	Ala	Ala	Leu	Thr	Leu	Leu	Leu	Tyr	Glu
		225				230			235
Arg	Val	Ala	His	Ala	Asp	Val	Phe	Ala	Pro
		245				250			255
Glu	Leu	Glu	Arg	Arg	Phe	Pro	Gly	Ala	Arg
		260				265			270
Gln	Thr	Ala	Ala	Pro	Ser	Pro	Leu	Arg	Leu
		275				280			285
Lys	His	Pro	Leu	Asp	Thr	Leu	Phe	Leu	Leu
		290				295			300
Leu	Thr	Pro	Asp	Phe	Leu	Asn	Arg	Cys	Arg
		305				310			315
Trp	Gln	Ala	Phe	Phe	Pro	Met	His	Phe	Gln
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Ala	Pro	Pro	Gln	Gly	Pro	Gly	Pro	Pro	Glu
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<210> 4837

<211> 906

<212> DNA

<213> Homo sapiens

<400> 4837

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 180
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 300
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<210> 4838

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4838

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 Glu Thr Ala Lys Gly Ile Asn Gly Thr Val Asn Tyr Asp Ser Val Asn
 35 40 45
 Ser Asp Asn Ser Lys Pro Lys Ile Phe Lys Ser Gln Ile Glu Asn Ile
 50 55 60
 Asn Leu Thr Asn Gly Ser Asn Gly Arg Asn Thr Glu Ser Pro Ala Ala
 65 70 75 80
 Ile His Pro Cys Gly Asn Pro Thr Val Ile Glu Asp Ala Leu Asp Lys
 85 90 95
 Ile Lys Ser Asn Asp Pro Asp Thr Thr Glu Val Asn Leu Asn Asn Ile
 100 105 110
 Glu Asn Ile Thr Thr Gln Thr Leu Thr Arg Phe Ala Glu Ala Leu Lys
 115 120 125
 Asp Asn Thr Val Val Lys Thr Phe Ser Leu Ala Asn Thr His Ala Asp
 130 135 140
 Asp Ser Ala Ala Met Ala Ile Ala Glu Met Leu Lys Val Asn Glu His
 145 150 155 160
 Ile Thr Asn Val Asn Val Glu Ser Asn Phe Ile Thr Gly Lys Gly Ile
 165 170 175
 Leu Ala Ile Met Arg Ala Leu Gln His Asn Thr Val Leu Thr Glu Leu
 180 185 190
 Arg Phe His Asn Gln Arg His Ile Met Gly Ser Gln Val Glu Met Glu
 195 200 205
 Ile Val Lys Leu Leu Lys Glu Asn Thr Thr Leu Leu Arg Leu Gly Tyr
 210 215 220
 His Phe Glu Leu Pro Gly Pro Arg Met Ser Met Thr Ser Ile Leu Thr

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<210> 4840

<211> 66

<212> PRT

<213> Homo sapiens

<400> 4840

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 Gly His Ser Arg Tyr Ser Ala His Ser Val Leu Gly His Pro Ala Pro
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<210> 4841

<211> 558

<212> DNA

<213> Homo sapiens

<400> 4841

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<210> 4842

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<213> Homo sapiens

<400> 4842

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Cys Pro Glu Gln Ser Leu Arg Asp Ala Ile Thr Leu Asp Leu Phe Cys
 35           40           45
His Ala Leu Ile Phe Cys Arg Gln Gln Gly Phe Ser Leu Glu Gln Thr
 50           55           60
Ser Ala Ala Cys Ala Leu Leu Gln Asp Leu His Lys Ala Cys Ile Gly
 65           70           75           80
His Ile His Val Leu Arg Ala Tyr Ile Lys Thr Gln Val Asn Lys Glu
 85           90           95
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<210> 4843

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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2640

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<210> 4848

<211> 242

<212> PRT

<213> Homo sapiens

<400> 4848

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		20				25						30			
Ile	Leu	Gln	Asp	Met	Tyr	Lys	Thr	Lys	Lys	Lys	Thr	Arg	Val	Ile	
		35				40					45				
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		50			55					60					
Met	Lys	Lys	Tyr	Ala	Glu	Thr	Phe	Leu	Glu	Pro	Trp	Phe	Lys	Ala	Pro
65				70					75					80	
Asn	Lys	Gly	Thr	Phe	Gln	Ile	Val	Tyr	Lys	Ser	Arg	Asn	Asn	Ser	His
			85					90						95	
Val	Asn	Arg	Glu	Glu	Val	Ile	Arg	Glu	Leu	Ala	Gly	Ile	Val	Cys	Thr
			100					105					110		
Leu	Asn	Ser	Glu	Asn	Lys	Val	Asp	Leu	Thr	Asn	Pro	Gln	Tyr	Thr	Val
		115				120					125				
Val	Val	Glu	Ile	Ile	Lys	Ala	Val	Cys	Cys	Leu	Ser	Val	Val	Lys	Asp
		130			135					140					
Tyr	Met	Leu	Phe	Arg	Lys	Tyr	Asn	Leu	Gln	Glu	Val	Val	Lys	Ser	Pro
145				150					155					160	
Lys	Asp	Pro	Ser	Gln	Leu	Asn	Ser	Lys	Gln	Gly	Asn	Gly	Lys	Glu	Ala
			165					170					175		
Lys	Leu	Glu	Ser	Ala	Asp	Lys	Ser	Asp	Gln	Asn	Asn	Thr	Ala	Glu	Gly
		180					185					190			
Lys	Asn	Asn	Gln	Gln	Val	Pro	Glu	Asn	Thr	Glu	Glu	Leu	Gly	Gln	Thr
		195				200						205			
Lys	Pro	Thr	Ser	Asn	Pro	Gln	Val	Val	Asn	Glu	Gly	Gly	Ala	Lys	Pro
		210				215					220				
Glu	Leu	Ala	Ser	Gln	Ala	Thr	Glu	Gly	Ser	Lys	Ser	Asn	Glu	Asn	Asp
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Phe	Ser														

<210> 4849

<211> 321

<212> DNA

<213> Homo sapiens

<400> 4849

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 120
 ggtgccttct ccgaggtggg gctggcccag gagcggggct ccgcacacct cgtggccctc
 180
 aagtgcaccc ccaagaaggc cctccggggc aaggaggccc tgggtggagaa cgagatcgca
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<210> 4850

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4850

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			20					25					30		
Gln	Glu	Arg	Gly	Ser	Ala	His	Leu	Val	Ala	Leu	Lys	Cys	Ile	Pro	Lys
			35				40					45			
Lys	Ala	Leu	Arg	Gly	Lys	Glu	Ala	Leu	Val	Glu	Asn	Glu	Ile	Ala	Val
			50			55					60				
Leu	Arg	Arg	Ile	Ser	His	Pro	Asn	Ile	Val	Ala	Leu	Glu	Asp	Val	His
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Glu	Ser	Pro	Ser	His	Leu	Tyr	Leu	Ala	Met						
				85					90						

<210> 4851

<211> 820

<212> DNA

<213> Homo sapiens

<400> 4851

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 180
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 240
 aaggacatgt ccaaatatac acctcacatt ctgctgtccc aagagaacac acagattaga
 300
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 360
 gaacttatca tgagcaata tcggaacagc atgttacagt taatggttgc taaaagagcg
 420
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 480
 attgacagaa tctgtgaaat gggagaagtg atgaggaaa cagttcaggt ggatgatgac
 540

cagttttgta agattcagga aaaattagcc caattagagc ttgaaaaataa ggaacttcga
 600
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 660
 gcttccaag ccatcaaata actgaactct gaatgatggc tggagattgt ctatcaagga
 720
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 820

<210> 4852

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4852

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 Ser Ala Ala Leu His Arg Arg Val Ala Ala Met Arg Glu Ala Gly Thr
 35 40 45
 Ala Leu Pro Asp Gln Tyr Gln Glu Asp Ala Ser Asp Met Lys Asp Met
 50 55 60
 Ser Lys Tyr Lys Pro His Ile Leu Leu Ser Gln Glu Asn Thr Gln Ile
 65 70 75 80
 Arg Asp Leu Gln Gln Glu Asn Arg Glu Leu Trp Ile Ser Leu Glu Glu
 85 90 95
 His Gln Asp Ala Leu Glu Leu Ile Met Ser Lys Tyr Arg Lys Gln Met
 100 105 110
 Leu Gln Leu Met Val Ala Lys Lys Ala Val Asp Ala Glu Pro Val Leu
 115 120 125
 Lys Ala His Gln Ser His Ser Ala Glu Ile Glu Ser Gln Ile Asp Arg
 130 135 140
 Ile Cys Glu Met Gly Glu Val Met Arg Lys Ala Val Gln Val Asp Asp
 145 150 155 160
 Asp Gln Phe Cys Lys Ile Gln Glu Lys Leu Ala Gln Leu Glu Ser Leu Glu
 165 170 175
 Asn Lys Glu Leu Arg Glu Leu Leu Ser Ile Ser Ser Glu Ser Leu Gln
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 Ala Arg Lys Glu Asn Ser Met Asp Thr Ala Ser Gln Ala Ile Lys
 195 200 205

<210> 4853

<211> 1467

<212> DNA

<213> Homo sapiens

<400> 4853

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gttttgcaca ccccgctttc cagcgcgagg tggggcgggg gtggggcggc gtcgctgcg
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 240
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<210> 4854

<211> 311

<212> PRT

<213> Homo sapiens

<400> 4854

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Glu Asn Pro Glu Gln Val Ala Ser Glu Gly Leu Pro Glu Pro Val Leu
      35
Arg Lys Val Glu Leu Pro Val Pro Thr His Arg Arg Pro Val Gln Ala
      50
Trp Val Glu Ser Leu Arg Gly Phe Glu Gln Glu Arg Val Gly Leu Ala
      65
Asp Leu His Pro Asp Val Phe Ala Thr Ala Pro Arg Leu Asp Ile Leu
      85
His Gln Val Ala Met Trp Gln Lys Asn Phe Lys Arg Ile Ser Tyr Ala
      100
Lys Thr Lys Thr Arg Ala Glu Val Arg Gly Gly Gly Arg Lys Pro Xaa
      115
Ala Ala Glu Arg His Trp Ala Gly Pro Ala Trp Gln His Pro Leu Ser
      130
Ala Leu Ala Arg Arg Arg Cys Cys Pro Trp Pro Pro Gly Pro Thr Ser
      145
Tyr Tyr Tyr Met Leu Pro Met Lys Val Arg Ala Leu Gly Leu Lys Val
      165
Ala Leu Thr Val Lys Leu Ala Gln Asp Asp Leu His Ile Met Asp Ser
      180
Leu Glu Leu Pro Thr Gly Asp Pro Gln Tyr Leu Thr Glu Leu Ala His
      195
Tyr Arg Arg Trp Gly Asp Ser Val Leu Leu Val Asp Leu Thr His Glu
      210
Glu Met Pro Gln Ser Ile Val Glu Ala Thr Ser Arg Leu Lys Thr Phe
      225
Asn Leu Ile Pro Ala Val Gly Leu Asn Val His Ser Met Leu Lys His
      245
Gln Thr Leu Val Leu Thr Leu Pro Thr Val Ala Phe Leu Glu Asp Lys
      260
Leu Leu Trp Gln Asp Ser Arg Tyr Arg Pro Leu Tyr Pro Phe Ser Leu
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<210> 4855

<211> 750

<212> DNA

<213> Homo sapiens

<400> 4855

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120
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ggcactactg gactcttttg tgggtactcag aacaaaggtt ttggatttgg tactggtttt
240

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<210> 4856

<211> 237

<212> FRT

<213> Homo sapiens

<400> 4856

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 35 40 45
 Thr Thr Gly Leu Phe Gly Gly Thr Gln Asn Lys Gly Phe Gly Phe Gly
 50 55 60
 Thr Gly Phe Gly Thr Thr Thr Gly Thr Ser Thr Gly Leu Gly Thr Gly
 65 70 75 80
 Leu Gly Thr Gly Leu Gly Phe Gly Gly Phe Asn Thr Gln Gln Gln Gln
 85 90 95
 Gln Gln Thr Thr Leu Gly Gly Leu Phe Ser Gln Pro Thr Gln Ala Pro
 100 105 110
 Thr Gln Ser Asn Gln Leu Ile Asn Thr Ala Ser Ala Leu Ser Ala Pro
 115 120 125
 Thr Leu Leu Gly Asp Glu Arg Asp Ala Ile Leu Ala Lys Trp Asn Gln
 130 135 140
 Leu Gln Ala Phe Trp Gly Thr Gly Lys Gly Tyr Phe Asn Asn Asn Ile
 145 150 155 160
 Pro Pro Val Glu Phe Thr Gln Glu Asn Pro Phe Cys Arg Phe Lys Ala
 165 170 175
 Val Gly Tyr Ser Cys Met Pro Ser Asn Lys Asp Glu Asp Gly Leu Val
 180 185 190
 Val Leu Val Phe Asn Lys Lys Glu Thr Glu Ile Arg Ser Gln Gln Gln
 195 200 205
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225

230

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<210> 4857

<211> 2887

<212> DNA

<213> Homo sapiens

<400> 4857

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<210> 4858

<211> 269
 <212> PRT
 <213> Homo sapiens

<400> 4858

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 35           40           45
Gln Ala Lys Glu Lys Glu Ile Glu Glu Leu Lys Ser Glu Arg Asp Thr
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Leu Leu Ala Arg Ile Glu Arg Met Glu Arg Arg Met Gln Leu Val Lys
 65           70           75           80
Lys Asp Asn Glu Lys Glu Arg His Lys Leu Phe Gln Gly Tyr Glu Thr
 85           90           95
Glu Glu Arg Glu Glu Thr Glu Leu Ser Glu Lys Ile Lys Leu Glu Cys
100           105           110
Gln Pro Glu Leu Ser Glu Thr Ser Gln Thr Leu Pro Pro Lys Pro Phe
115           120           125
Ser Cys Gly Arg Ser Gly Lys Gly His Lys Arg Lys Ser Pro Phe Gly
130           135           140
Ser Thr Glu Arg Lys Thr Pro Val Lys Lys Leu Ala Pro Glu Phe Ser
145           150           155           160
Lys Val Lys Thr Lys Thr Pro Lys His Ser Pro Ile Lys Glu Glu Pro
165           170           175
Cys Gly Ser Leu Ser Glu Thr Val Cys Lys Arg Glu Leu Arg Ser Gln
180           185           190
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195           200           205
Ser Thr Pro Gln Lys Gly Pro Ser Thr His Pro Lys Glu Lys Ala Phe
210           215           220
Ser Ser Glu Ile Glu Asp Leu Pro Tyr Leu Ser Thr Thr Glu Met Tyr
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<210> 4859
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 <212> DNA
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<400> 4859

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240

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 360
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<210> 4860

<211> 173

<212> PRT

<213> Homo sapiens

<400> 4860

Met Arg Thr Arg Leu Phe Ala Val Pro Gly Arg Val Ala Lys Glu Asp
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 Trp Thr Leu Asp Leu Glu Pro Arg Gly Pro Val His Ile His Pro Thr
 20 25 30
 Arg Val Ser Gly Gly Leu Pro Arg Cys Leu Cys Trp Val Ala Val Val
 35 40 45
 Val Pro Arg Gly Met Glu Cys Pro Gly Leu Leu Gln Glu Leu Ser Thr
 50 55 60
 Gln Gly Gln Gly Glu Pro Arg Glu Lys Arg Pro Gly Leu Leu Ser Phe
 65 70 75 80
 Leu Ile Cys Ser Cys Pro Pro Leu Ser Ser Thr Pro Leu Pro Phe Pro
 85 90 95
 Arg Leu Ser Pro Pro Trp Ala Phe Val Cys Phe Gly Arg Cys His Leu
 100 105 110
 Thr Arg Thr Leu Ile Phe Asn Pro Ile Pro Leu Pro Pro Thr Leu Pro
 115 120 125
 His Phe Asp Leu Ile Leu Trp Leu Trp Ala Glu Ala Ser Gln Gly Ser
 130 135 140
 Trp Val Gly Trp Val Leu Arg Pro Pro Gln Thr Ser Thr Glu Thr Cys
 145 150 155 160
 Pro Cys Ala Val Cys Thr Leu His Ser Leu Pro Cys Leu
 165 170

<210> 4861

<211> 1622

<212> DNA

<213> Homo sapiens

<400> 4861

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120
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180
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240
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300
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420
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480
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600
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tcatcagaag tgtacttctt gccacacagc taccacgaa ggaaggccac tgtgaagcag
780
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1500
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1620
aa
1622

<210> 4862

<211> 260

<212> PRT

<213> Homo sapiens

<400> 4862

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Leu Gln Thr Ser Gly Gly Ala Leu Gln Ala Arg Gly Thr Pro Met Ala
 1              5              10              15
Gly Tyr Leu Lys Leu Val Cys Val Ser Phe Gln Arg Gln Gly Phe His
          20              25              30
Thr Val Gly Ser Arg Cys Lys Asn Arg Thr Gly Ala Glu His Leu Trp
          35              40              45
Leu Thr Arg His Leu Arg Asp Pro Phe Val Lys Ala Ala Lys Val Glu
          50              55              60
Ser Tyr Arg Cys Arg Ser Ala Phe Lys Leu Leu Glu Val Asn Glu Arg
65              70              75              80
His Gln Ile Leu Arg Pro Gly Leu Arg Val Leu Asp Cys Gly Ala Ala
          85              90              95
Pro Gly Ala Trp Ser Gln Val Ala Val Gln Lys Val Asn Ala Ala Gly
          100             105             110
Thr Asp Pro Ser Ser Pro Val Gly Phe Val Leu Gly Val Asp Leu Leu
          115             120             125
His Ile Phe Pro Leu Glu Gly Ala Thr Phe Leu Cys Pro Ala Asp Val
          130             135             140
Thr Asp Pro Arg Thr Ser Gln Arg Ile Leu Glu Val Leu Pro Gly Arg
          145             150             155             160
Arg Ala Asp Val Ile Leu Ser Asp Met Ala Pro Asn Ala Thr Gly Phe
          165             170             175
Arg Asp Leu Asp His Asp Arg Leu Ile Ser Leu Cys Leu Thr Leu Leu
          180             185             190
Ser Val Thr Pro Asp Ile Leu Gln Pro Gly Gly Thr Phe Leu Cys Lys
          195             200             205
Thr Trp Ala Gly Ser Gln Ser Arg Arg Leu Gln Arg Arg Leu Thr Glu
          210             215             220
Glu Phe Gln Asn Val Arg Ile Ile Lys Pro Glu Ala Ser Arg Lys Glu
          225             230             235             240
Ser Ser Glu Val Tyr Phe Leu Ala Thr Gln Tyr His Gly Arg Lys Gly
          245             250             255
Thr Val Lys Gln
          260

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<210> 4863

<211> 355

<212> DNA

<213> Homo sapiens

<400> 4863

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ctgggggctc actttcgggt gcacctgggt aagatggcca ttctgacaga gcctgagggg
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gccccaaata tcacagccaa cctcacctcg tcctgtctga gctgtctgg gtggagccag
120
accatcaacc ctgaggaaga caggatcct ggccatgctg acctgttcct ctatatcact
180

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aggtttgacc tggagttgcc tgaatggtaac ncggcagtc ggggcgtcac ccagctgggc
 240
 ggggcctgct ccccaacctg gagctgcctc attaccgag acactggctt cgacctggga
 300
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 355

<210> 4864
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 4864
 Leu Gly Ala His Phe Arg Val His Leu Val Lys Met Val Ile Leu Thr
 1 5 10 15
 Glu Pro Glu Gly Ala Pro Asn Ile Thr Ala Asn Leu Thr Ser Ser Leu
 20 25 30
 Leu Ser Val Cys Gly Trp Ser Gln Thr Ile Asn Pro Glu Asp Asp Thr
 35 40 45
 Asp Pro Gly His Ala Asp Leu Val Leu Tyr Ile Thr Arg Phe Asp Leu
 50 55 60
 Glu Leu Pro Asp Gly Asn Xaa Ala Val Arg Gly Val Thr Gln Leu Gly
 65 70 75 80
 Gly Ala Cys Ser Pro Thr Trp Ser Cys Leu Ile Thr Glu Asp Thr Gly
 85 90 95
 Phe Asp Leu Gly Val Thr Ile Ala His Glu Ile Gly His Ser Phe Gly
 100 105 110
 Leu Glu His Asp Gly Ala
 115

<210> 4865
 <211> 444
 <212> DNA
 <213> Homo sapiens

<400> 4865
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 120
 aaggccttcg ccgacagctc ttacctgctt cgcaccagc gcactcactc tggccagaag
 180
 cctacaagt gccacattg tggcaaggcc ttgcgcgaca gctcctacct cctcgacacac
 240
 cagcgcaccc acagccacga cggccctac agtgcaccg agtgccgcaa gtgctatagc
 300
 cagaactcgt ccctgcgcag ccatcagagg gtgcacaccg gtcagaggcc cttcagctgt
 360
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 420
 gcccgaggaga agcccttcac ggt
 444

<210> 4866

<211> 143
 <212> PRT
 <213> Homo sapiens

<400> 4856
 Thr Gly Glu Lys Pro Tyr Lys Cys Glu Val Cys Ser Lys Ala Phe Ser
 1 5 10 15
 Gln Ser Ser Asp Leu Ile Lys His Gln Arg Thr His Thr Gly Glu Arg
 20 25 30
 Pro Tyr Lys Cys Pro Arg Cys Gly Lys Ala Phe Ala Asp Ser Ser Tyr
 35 40 45
 Leu Leu Arg His Gln Arg Thr His Ser Gly Gln Lys Pro Tyr Lys Cys
 50 55 60
 Pro His Cys Gly Lys Ala Phe Gly Asp Ser Ser Tyr Leu Leu Arg His
 65 70 75 80
 Gln Arg Thr His Ser His Glu Arg Pro Tyr Ser Cys Thr Glu Cys Gly
 85 90 95
 Lys Cys Tyr Ser Gln Asn Ser Ser Leu Arg Ser His Gln Arg Val His
 100 105 110
 Thr Gly Gln Arg Pro Phe Ser Cys Gly Ile Cys Gly Lys Ser Phe Ser
 115 120 125
 Gln Arg Ser Ala Leu Ile Pro His Ala Arg Ser His Ala Arg Glu Lys
 130 135 140
 Pro Phe Thr Arg
 145

<210> 4867
 <211> 391
 <212> DNA
 <213> Homo sapiens

<400> 4867
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 tatccttggg gggaggatga gaaggacaaa aagaggcaac cagcctaggg acatcggcct
 120
 ccttctccac atccccattc tggtaggaaa agtcacccat gccaggatat ccccgccca
 180
 gagacagccc cagggggtgc tgcctggaga cagccgggat agcttcagtc tcttgaccct
 240
 gacacggggc gcaccaccag acaatgggca ttttcaggcc agactctggc acaaagagaa
 300
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 360
 agcgctctac tcccatagct cccactgta t
 391

<210> 4868
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 4868
 Met Gly Val Glu Arg Tyr Leu Leu His Pro Ser Gln Leu Leu Arg Ser

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      1             5             10             15
Leu Trp Ala Ile Ala Leu Ala Leu Pro Leu Leu Phe Val Pro Glu Ser
      20             25             30
Gly Leu Lys Met Pro Ile Val Trp Trp Cys Ser Pro Cys Gln Gly Gln
      35             40             45
Glu Thr Glu Ala Ile Pro Ala Val Ser Arg Gln His Pro Leu Gly Leu
      50             55             60
Ser Leu Gly Trp Gly Tyr Pro Gly Met Gly Asp Phe Ser Tyr Gln Asn
      65             70             75
Gly Asp Val Glu Lys Glu Ala Asp Val Pro Arg Leu Val Ala Ser Phe
      85             90             95
Cys Pro Ser His Pro Pro Thr Lys Asp Met Arg Leu Leu Pro Ser Asn
      100            105            110
Leu Leu Gly Ala Ser Pro Asp Arg Thr Pro Ser Gly Ile
      115            120            125

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<210> 4869

<211> 418

<212> DNA

<213> Homo sapiens

<400> 4869

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cccggaaga gggtcgccc ccaataatgc ggaaacagtt aaatggcgat gggaatagga
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120
caggactgca cggactgcct ggggaggggt cttggcccc cgggttctcg caggggggct
180
cggggaggcc ctgtgagcag ttggtcacag gtgggtccca ttgatgcga tctgttctt
240
ccccaacagc cctggagaag ggggacgttg cctgctgtgg ctgcggctgt ttctctggcc
300
tgtgagaggc ggggccagag tggccgttgg gaatctgggt gttgcaaggt gaccacaaac
360
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418

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<210> 4870

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4870

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Met Ala Met Gly Ile Gly Trp Glu Leu Asn Gly Val Ala Thr Phe Gly
      1             5             10             15
Trp Thr Arg Arg Gln Pro Ser Phe Leu Gly Gln Asp Cys Thr Asp Cys
      20             25             30
Leu Gly Arg Gly Leu Trp Pro Pro Gly Ser Cys Arg Gly Ala Arg Gly
      35             40             45
Gly Pro Val Ser Ser Trp Ser Gln Val Gly Pro Ile Arg Cys Asp Pro
      50             55             60
Val Pro Pro Gln Gln Pro Trp Arg Arg Gly Thr Leu Pro Ala Val Ala
      65             70             75
Ala Ala Val Phe Leu Ala Cys Glu Arg Arg Gly Gln Ser Gly Arg Trp

```

```

      85              90              95
Glu Ser Gly Cys Cys Lys Val Thr Thr Asn Ser Ser Leu Gly Glu Glu
      100              105              110
Glu Glu Asn Ala Ile Asp Phe Gln Glu Pro Ser Glu Val
      115              120              125

<210> 4871
<211> 1354
<212> DNA
<213> Homo sapiens

<400> 4871
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120
cagccctctca ggccatgctg ctgctcagct gcattggcaaa gtctctgcaca tgctccttca
180
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240
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300
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660
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720
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780
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960
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1020
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1080
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1140
cctcgagaag aaaagcagtt tcttcagcgt catctggcag gtaacagagt gggggcggtc
1200
caagccggct agacttcccg tcttccctt cccgactgca ttcagtcctg ccgggaccgt
1260

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tccgcttcac ctcccaccca caggttcaag cctcctcagt atctgagaaa ggcgcgaagc
 1320
 ctctacgcag ttgcgacccg aggcgagcaa caac
 1354

<210> 4872

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4872

Gly	Arg	Lys	Arg	Leu	Gln	Ser	Cys	Trp	Ala	Ala	Pro	Arg	Ser	Val	Gln
1				5					10					15	
Gln	Pro	Leu	Arg	Pro	Cys	Cys	Cys	Ser	Ala	Ala	Trp	Gln	Ser	Pro	Ala
				20				25				30			
His	Ala	Pro	Ser	Glu	Ser	Gly	Gly	His	Leu	Pro	Val	Pro	Ala	Ser	Pro
				35			40				45				
Val	Pro	Ala	Pro	Ala	Ala	Ala	Trp	Ser	Val	Ser	Thr	Ala	Ala	Ala	Ala
				50			55				60				
Pro	Ala	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Ala	Gly	Pro	Cys	Gln	Gly	His
				65			70			75				80	
Gln	Gly	Leu	Pro	Gly	Ser	Pro	Leu	Pro	Glu						
				85					90						

<210> 4873

<211> 948

<212> DNA

<213> Homo sapiens

<400> 4873

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 120
 ccactgtgag ttgaactctt tcgtgttgac cggccactct ccgtgctctg gatgatgtcg
 180
 gaacacgacc tggccgatgt ggttcaaatt gcagtggagg acctgagccc tgaccaccca
 240
 ggtacagagc tgtgggacag tgttgttttg gagaatcatg tagtgacaga tgaagacgaa
 300
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 420
 gccctggagg ctacttgtaa atccttagaa gaaaagctgg atctggtcac gaacaagcag
 480
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 540
 aacaaagtgc gatggaaga acagaccagg gtgcggggc ctacaggtca cttggggaga
 600
 agcgcgtcac ctctcgccc atgcccgcag cttagtggct cagtttgtg gagatgcgca
 660
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 720

cgaacacatg gcatcctgcc aggatgacct gaagtcaccc tcacctttcc ttccacata
 780
 aagccggccc atacaccttt tctttggaac taaccaccca gatcttagaa gatgtacag
 840
 tgcttctttc ctttttcccta ctctacctgg ctagtcttta gatatgtttt tcttcgtatg
 900
 tgggtgttat acatttcaca tgaatatatc aaacttttca ttcaaaaa
 948

<210> 4874
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 4874
 Met Met Ser Glu His Asp Leu Ala Asp Val Val Gln Ile Ala Val Glu
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 Asp Leu Ser Pro Asp His Pro Gly Thr Glu Leu Trp Asp Ser Val Val
 20 25 30
 Leu Glu Asn His Val Val Thr Asp Glu Asp Glu Pro Ala Leu Lys Arg
 35 40 45
 Gln Arg Leu Glu Ile Asn Cys Gln Asp Pro Ser Ile Lys Ser Phe Leu
 50 55 60
 Tyr Ser Ile Asn Gln Thr Ile Cys Leu Arg Leu Asp Ser Ile Glu Ala
 65 70 75 80
 Lys Leu Gln Ala Leu Glu Ala Thr Cys Lys Ser Leu Glu Glu Lys Leu
 85 90 95
 Asp Leu Val Thr Asn Lys Gln His Ser Pro Ile Gln Val Pro Met Val
 100 105 110
 Ala Gly Ser Pro Leu Arg Thr Thr Gln Met Cys Asn Lys Val Arg Trp
 115 120 125

<210> 4875
 <211> 1255
 <212> DNA
 <213> Homo sapiens

<400> 4875
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 120
 tggacgcagt tttagaaaga gcgttttcgc tacgtaaacg acattcgata aaggatatgg
 180
 aaaaactctt gcagctgggtg agaaatatca tacctctctt gtcttcacaa aagcacaaaag
 240
 ggcaagatgg aagaataggg gtagttggag gctgtcagga gtacactgga gcccacatatt
 300
 ttgcagcaat ctacgctctc aaagtggggc cagacttgtc ccacgtgttc tgtgccagtg
 360
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 420
 gcccacatgc tgttcatgag gtggagaagt ggctgccccg gctgcagtct ctttcgtatg
 480

gacctggcctt gggtagagat gatcgtccac ccagttcttg acagccccaa tgctgttcat
 540
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 600
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 660
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 aatgggtcca gccctctcct ggtggccgcg tttggcgctc gctctctcac caggcagtg
 1080
 aaccaccaag ccttcagaa gcacggtcgc tccaccacca cctccgacat gatcgccag
 1140
 gtggggggccg ccttcagcaa gctctttgaa acctgagccc gcgcagacca gaagtaaa
 1200
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 1255

<210> 4876

<211> 230

<212> PRT

<213> Homo sapiens

<400> 4876

Leu Ala Trp Val Glu Met Ile Val His Pro Val Leu Asp Ser Pro Asn
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 Ala Val His Glu Val Glu Lys Trp Leu Pro Arg Leu His Ala Leu Val
 20 25 30
 Val Gly Thr Gly Leu Gly Arg Asp Asp Ala Leu Leu Arg Asn Val Gln
 35 40 45
 Gly Ile Leu Glu Val Ser Lys Ala Arg Asp Ile Pro Val Val Ile Asp
 50 55 60
 Ala Asp Gly Leu Trp Leu Val Ala Gln Gln Pro Ala Leu Ile His Gly
 65 70 75 80
 Tyr Arg Lys Ala Val Leu Thr Pro Asn His Val Glu Phe Ser Arg Leu
 85 90 95
 Tyr Asp Ala Val Leu Arg Gly Pro Met Asp Ser Asp Asp Ser His Gly
 100 105 110
 Ser Val Leu Arg Leu Ser Gln Ala Leu Gly Asn Val Thr Val Val Gln
 115 120 125
 Lys Gly Glu Arg Asp Ile Leu Ser Asn Gly Gln Gln Val Leu Val Cys
 130 135 140
 Ser Gln Glu Gly Ser Ser Arg Arg Cys Gly Gly Gln Gly Asp Leu Leu
 145 150 155 160
 Ser Gly Ser Leu Gly Val Leu Val His Trp Ala Leu Leu Ala Gly Pro

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      165              170              175
Gln Lys Thr Asn Gly Ser Ser Pro Leu Leu Val Ala Ala Phe Gly Ala
      180              185              190
Cys Ser Leu Thr Arg Gln Cys Asn His Gln Ala Phe Gln Lys His Gly
      195              200              205
Arg Ser Thr Thr Thr Ser Asp Met Ile Ala Glu Val Gly Ala Ala Phe
      210              215              220
Ser Lys Leu Phe Glu Thr
      225              230

<210> 4877
<211> 1182
<212> DNA
<213> Homo sapiens

<400> 4877
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120
gttcaatgaa tgcgtagcga atgaatgaac gactctagtg aaagagactc caatgacgca
180
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240
cgtgacgcgg tgactcgcag agcactgacg cactctgcgc ccggaggaca gagcgccccg
300
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360
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420
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<210> 4878

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4878

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Leu	Ile	Ile	Leu	Leu	Gln	Gly	Leu	Gln	Gly	Arg	Val	Thr	Thr	Val	Asp
			20					25					30		
Leu	Arg	Asp	Glu	Ser	Val	Ala	His	Gly	Arg	Ile	Asp	Asn	Val	Asp	Ala
			35				40					45			
Phe	Met	Asn	Ile	Arg	Leu	Ala	Lys	Val	Thr	Tyr	Thr	Asp	Arg	Trp	Gly
	50				55					60					
His	Gln	Val	Lys	Leu	Asp	Asp	Leu	Phe	Val	Thr	Gly	Arg	Asn	Val	Arg
65				70					75					80	
Tyr	Val	His	Ile	Pro	Asp	Asp	Val	Asn	Ile	Thr	Ser	Thr	Ile	Glu	Gln
			85					90					95		
Gln	Leu	Gln	Ile	Ile	His	Arg	Val	Arg	Asn	Phe	Gly	Gly	Lys	Gly	Gln
			100				105						110		
Gly	Arg	Trp	Glu	Phe	Pro	Pro	Lys	Lys	Leu						
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<210> 4879

<211> 1941

<212> DNA

<213> Homo sapiens

<400> 4879

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660

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1920
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<210> 4880

<211> 202

<212> FRT

<213> Homo sapiens

<400> 4880

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His Lys Pro Gly Leu Gly Lys Cys Pro Asp Leu Pro Gly Gly His Thr

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 840
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 900
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<210> 4882

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4882

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Arg	Glu	Ala	Thr	Gly	Val	Glu	Asn	Arg	Val	Thr	Ser	Pro	Leu	Pro	Pro
		20						25					30		
Leu	Pro	Phe	Leu	Pro	Ser	Gln	Pro	Leu	Gly	Phe	Gly	Tyr	Met	Thr	Gln
		35					40					45			
Gln	Leu	Met	Asn	Leu	Ala	Gly	Gly	Ala	Val	Val	Leu	Ala	Leu	Glu	Gly
		50					55				60				
Gly	His	Asp	Leu	Thr	Ala	Ile	Cys	Asp	Ala	Ser	Glu	Ala	Cys	Val	Ala
		65				70				75			80		
Ala	Leu	Leu	Gly	Asn	Arg	Val	Ser	Arg	Leu	Pro	Pro	Ser	Met	Leu	
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Leu	Ser	Gly	Arg												
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<210> 4883

<211> 1371

<212> DNA

<213> Homo sapiens

<400> 4883

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cgcttctga aaaaaacaaa acaaaagctg accgtatgtc ctatcatcaa tggggaagac
 180
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<210> 4884<211> 410

<212> PRT

<213> Homo sapiens

<400> 4884

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Thr	Lys	Gln	Lys	Leu	Thr	Val	Cys	Pro	Ile	Ile	Asn	Gly	Glu	Asp	His
		20					25					30			
Leu	Arg	Leu	Leu	Asn	Phe	Gln	His	Asn	Phe	Ile	Thr	Arg	Ile	Gln	Asn
		35					40					45			

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Ile Glu Glu Ile Ser Gly Leu Ser Thr Leu Arg Cys Leu Arg Val Leu
65 70 75 80
Leu Leu Gly Lys Asn Arg Ile Lys Lys Ile Ser Asn Leu Glu Asn Leu
85 90 95
Lys Ser Leu Asp Val Leu Asp Leu His Gly Asn Gln Ile Thr Lys Ile
100 105 110
Glu Asn Ile Asn His Leu Cys Glu Leu Arg Val Leu Asn Leu Ala Arg
115 120 125
Asn Phe Leu Ser His Val Asp Asn Leu Asn Gly Leu Asp Ser Leu Thr
130 135 140
Glu Leu Asn Leu Arg His Asn Gln Ile Thr Phe Val Arg Asp Val Asp
145 150 155 160
Asn Leu Pro Cys Leu Gln His Leu Phe Leu Ser Phe Asn Asn Ile Ser
165 170 175
Ser Phe Asp Ser Val Ser Cys Leu Ala Asp Ser Ser Ser Leu Ser Asp
180 185 190
Ile Thr Phe Asp Gly Asn Pro Ile Ala Gln Glu Ser Trp Tyr Lys His
195 200 205
Thr Val Leu Gln Asn Met Met Gln Leu Arg Gln Leu Asp Met Lys Arg
210 215 220
Ile Thr Glu Glu Glu Arg Arg Met Ala Ser Val Leu Ala Lys Lys Glu
225 230 235 240
Glu Glu Lys Lys Arg Glu Ser His Lys Gln Ser Leu Leu Lys Glu Lys
245 250 255
Lys Arg Leu Thr Ile Asn Asn Val Ala Arg Gln Trp Asp Leu Gln Gln
260 265 270
Arg Val Ala Asn Ile Ala Thr Asn Glu Asp Arg Lys Asp Ser Asp Ser
275 280 285
Pro Gln Asp Pro Cys Gln Ile Asp Gly Ser Thr Leu Ser Ala Phe Pro
290 295 300
Glu Glu Thr Gly Pro Leu Asp Ser Gly Leu Asn Asn Ala Leu Gln Gly
305 310 315 320
Leu Ser Val Ile Asp Thr Tyr Leu Val Glu Val Asp Gly Asp Thr Leu
325 330 335
Ser Leu Tyr Gly Ser Gly Ala Leu Glu Ser Leu Asp Arg Asn Trp Ser
340 345 350
Val Gln Thr Ala Gly Met Ile Thr Thr Val Ser Phe Thr Phe Ile Glu
355 360 365
Phe Asp Glu Ile Val Gln Val Leu Pro Lys Leu Lys Ile Lys Phe Pro
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Asn Ser Leu His Leu Lys Phe Lys Glu Thr Asn Leu Val Met Gln Gln
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<210> 4885

<211> 489

<212> DNA

<213> Homo sapiens

<400> 4885

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<210> 4886

<211> 77

<212> PRT

<213> Homo sapiens

<400> 4886

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Asn	Pro	Met	Gln	Val	Phe	Gln	Gly	Phe	Met	Ser	Phe	Lys	Asp	Val	Ala
			20				25						30		
Val	Asn	Phe	Thr	Arg	Xaa	Glu	Trp	Arg	Glu	Leu	Asp	Leu	Ala	Gln	Arg
			35				40						45		
Val	Leu	Tyr	Arg	Asp	Val	Met	Leu	Glu	Asn	Tyr	Arg	Asn	Leu	Val	Ser
			50				55				60				
Leu	Val	Gly	Phe	Pro	Phe	Ser	Lys	Pro	Gly	Ile	Ile	Ser			
65						70					75				

<210> 4887

<211> 2271

<212> DNA

<213> Homo sapiens

<400> 4887

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 360

cagcatctat ctctattaaa tgtagaggaa ttgacaaaag aggggaaaga aagtgttag
420
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1980

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 2271

<210> 4888

<211> 429

<212> PRT

<213> Homo sapiens

<400> 4888

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Leu	Gly	Asp	Ile	Pro	Leu	Pro	Gly	Ser	Ile	Ser	Asp	Gly	Met	Asn	Ser
				20				25					30		
Ser	Ala	His	Tyr	His	Val	Asn	Phe	Ser	Gln	Ala	Ile	Ser	Gln	Asp	Val
				35			40					45			
Asn	Leu	His	Glu	Ala	Ile	Leu	Leu	Cys	Pro	Asn	Asn	Thr	Phe	Arg	Arg
				50			55				60				
Asp	Pro	Thr	Ala	Arg	Thr	Ser	Gln	Ser	Gln	Glu	Pro	Phe	Leu	Gln	Leu
				65			70			75				80	
Asn	Ser	His	Thr	Thr	Asn	Pro	Glu	Gln	Thr	Leu	Pro	Gly	Thr	Asn	Leu
				85				90					95		
Thr	Gly	Phe	Leu	Ser	Pro	Val	Asp	Asn	His	Met	Arg	Asn	Leu	Thr	Ser
			100				105						110		
Gln	Asp	Leu	Leu	Tyr	Asp	Leu	Asp	Ile	Asn	Ile	Phe	Asp	Glu	Ile	Asn
			115				120					125			
Leu	Met	Ser	Leu	Ala	Thr	Glu	Asp	Asn	Phe	Asp	Pro	Ile	Asp	Val	Ser
				130			135				140				
Gln	Leu	Phe	Asp	Glu	Pro	Asp	Ser	Asp	Ser	Gly	Leu	Ser	Leu	Asp	Ser
				145			150			155				160	
Ser	His	Asn	Asn	Thr	Ser	Val	Ile	Lys	Ser	Asn	Ser	Ser	His	Ser	Val
				165				170					175		
Cys	Asp	Glu	Gly	Ala	Ile	Gly	Tyr	Cys	Thr	Asp	His	Glu	Ser	Ser	Ser
			180				185					190			
His	His	Asp	Leu	Glu	Gly	Ala	Val	Gly	Gly	Tyr	Tyr	Pro	Glu	Pro	Ser
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Lys	Leu	Cys	His	Leu	Asp	Gln	Ser	Asp	Ser	Asp	Phe	His	Gly	Asp	Leu
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Thr	Phe	Gln	His	Val	Phe	His	Asn	His	Thr	Tyr	His	Leu	Gln	Pro	Thr
			225				230			235				240	
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Lys	Ile	Arg	Ser	Arg	Tyr	Leu	Glu	Asp	Pro	Asp	Arg	Thr	Leu	Ser	Arg
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Asp	Asp	Gln	Arg	Ala	Lys	Ala	Leu	His	Ile	Pro	Phe	Ser	Val	Asp	Glu
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Ile	Val	Gly	Met	Pro	Val	Asp	Ser	Phe	Asn	Ser	Met	Leu	Ser	Arg	Tyr

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      325              330              335
Ile Ile Leu Asn Leu Glu Asp Asp Val Cys Asn Leu Gln Ala Lys Lys
      340              345              350
Glu Thr Leu Lys Arg Glu Gln Ala Gln Cys Asn Lys Ala Ile Asn Ile
      355              360              365
Met Lys Gln Lys Leu His Asp Leu Tyr His Asp Ile Phe Ser Arg Leu
      370              375              380
Arg Asp Asp Gln Gly Arg Pro Val Asn Pro Asn His Tyr Ala Leu Gln
      385              390              395              400
Cys Thr His Asp Gly Ser Ile Leu Ile Val Pro Lys Glu Leu Val Ala
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Ser Gly His Lys Lys Glu Thr Gln Lys Gly Lys Arg Lys
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<210> 4889

<211> 619

<212> DNA

<213> Homo sapiens

<400> 4889

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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 4891

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<212> PRT

<213> Homo sapiens

<400> 4892

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<212> PRT

<213> Homo sapiens

<400> 4894

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<211> 109

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<212> DNA

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1620

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<210> 4898

<211> 92

<212> PRT

<213> Homo sapiens

<400> 4898

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Gln	Pro	Leu	Pro	Leu	Arg	Phe	Lys	Gln	Phe	Ser	Cys	Phe	Ser	Leu	Pro
		20					25					30			
Ser	Ser	Trp	Asp	Tyr	Arg	Arg	Pro	Pro	Arg	Cys	Pro	Ala	Asn	Phe	Cys
		35				40					45				
Ile	Phe	Ser	Lys	Asp	Arg	Val	Ser	Pro	Cys	Trp	Leu	Gly	Trp	Ser	Gln
	50				55					60					
Thr	Pro	Asp	Xaa	Thr	Arg	Leu	Gly	Leu	Pro	Lys	Cys	Trp	Asp	Tyr	Arg
65			70					75						80	
Arg	Glu	Pro	Pro	Arg	Pro	Gly	Asp	Leu	Trp	Asn	Phe				
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<210> 4899

<211> 444

<212> DNA

<213> Homo sapiens

<400> 4899

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 180
 aggtggaggt gaacatctgc cgttcccaca gccctgcgtg ccccccaaa tgctgctggc
 240
 ccacagaatc agccagtgcc acggcccccac cacagccagg cttggccctg tcagcggcca
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 444

<210> 4900

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4900

Met Gly Thr Asn Val Gly Pro Ala Ala Ser Val Arg Gly Leu Gly Ile

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	20	25	30
Arg Gln Gln Arg Gly Pro Leu Gly Trp Val Gly Val Leu Leu Asp Ser			
	35	40	45
Gly Gly Gly Glu His Leu Pro Phe Pro Gln Pro Cys Val His Pro Gln			
	50	55	60
Met Leu Leu Ala His Arg Ile Ser Gln Cys His Gly Pro Thr Thr Ala			
	65	70	75
Arg Leu Gly Pro Val Ser Gly Gln His Pro Glu Gly Gln Gly Pro Ser			
	85	90	95
Val Leu Thr Lys Glu Ala Leu Gly Val Ala Val Pro Ala Pro Met Gly			
	100	105	110
Leu Leu Leu Gly Arg Gly			
	115		

<210> 4901

<211> 1520

<212> DNA

<213> Homo sapiens

<400> 4901

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120
gcacgggggc gtgctgcgct gttgaggacg ctgtcccgcg cgctcccagg ccgccccag
180
gcttggggtc ttcgaaggat aatcggcgcc cggggccgaa cagcgggggc acacggggcg
240
ctgccgaagt gcaaggccac ggccagagct cgagcccagc gcgctgtctg gagtcgtagg
300
ttggcgcgct ttggggtcgg ggtctgaggg ttgggcgctg cctggggccga gcggagatcg
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gggtttgcct cccgtccccg ctcaggaccc tgacgttgctt gaagcggccc cgggagcatg
420
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480
agcctgtgtg agcgctacgt gcacgaccgc tttctgtgtg ggccttatca gaaccaccac
540
ggggccgcct tcgtggccaa ggtgatgtcg gtcggagacc gaactgtgac attaggtatt
600
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840
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900
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960

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tggcctcctt gaactgtggg gtccaggaga ctccctgaac tgctagccct cccctttgtc
 1020
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 1080
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 1260
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 1320
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 1380
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<210> 4902

<211> 184

<212> PRT

<213> Homo sapiens

<400> 4902

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 Leu Val Gly Pro Tyr Gln Asn Thr Ile Gly Ala Ala Phe Val Ala Lys
 35 40 45
 Val Met Ser Val Gly Asp Arg Thr Val Thr Leu Gly Ile Trp Asp Thr
 50 55 60
 Ala Gly Ser Glu Arg Tyr Glu Ala Met Ser Arg Ile Tyr Tyr Arg Gly
 65 70 75 80
 Ala Lys Ala Ala Ile Val Cys Tyr Asp Leu Thr Asp Ser Ser Ser Phe
 85 90 95
 Glu Arg Ala Lys Phe Trp Val Lys Glu Leu Arg Ser Leu Glu Glu Gly
 100 105 110
 Cys Gln Ile Tyr Leu Cys Gly Thr Lys Ser Asp Leu Leu Glu Asp
 115 120 125
 Arg Arg Arg Arg Val Asp Phe His Asp Val Gln Asp Tyr Ala Asp
 130 135 140
 Ser Ser Cys Ser Ser Ala Leu Trp Gly Val Gly Val Cys Gly Cys Leu
 145 150 155 160
 Gly Gly Ser Lys Lys Ile Gly Thr Ala Leu Ala Ala Arg Ala Arg Cys
 165 170 175
 Ser Arg Arg Ser Ser Trp Pro Pro
 180

<210> 4903

<211> 1064

<212> DNA

<213> Homo sapiens

<400> 4903

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 180
 gaaaggagag gtggggcttt cagtagaaac aagcaaacgc cagtccctgt ggggggactc
 240
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 300
 gctcagctgt acaaggagga agggaaccag cgctaccggg aagggaagta cagagatgct
 360
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 420
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 480
 ttgcatacca ccagacaga ctgctataac aatctagctg cttgtctcct tcagatggag
 540
 cccgtgaact acgaacgagt gagagaatat agtcagaaag tcctggaaacg acagcctgat
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 aatgccaaag ccttgtatcg ggcgggagt gccttttttc atctgcagga ctatgaccag
 660
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 720
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 780
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 840
 ttaaacatgc atgaaggaga aatctgagcc tcagcaagag aaattaaccc tatacctctg
 900
 acccaggctg atttttgttt ctagtcttgc acaaaactca ctacttagac agtctgagtc
 960
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<210> 4904

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4904

Cys Trp Ala Ser Leu Phe Pro His Pro Phe Pro Tyr Tyr Leu Pro Ala
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 Leu Leu Glu Lys Lys Thr Ala Glu Arg Arg Gly Gly Ala Phe Ser Arg
 20 25 30
 Asn Lys Gln Thr Ala Val Pro Val Gly Gly Leu Ser Arg Lys Lys Val
 35 40 45
 Pro Gln Glu Pro Trp Ala Thr Val Met Glu Lys Arg Leu Gln Glu Ala

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      50              55              60
Gln Leu Tyr Lys Glu Glu Gly Asn Gln Arg Tyr Arg Glu Gly Lys Tyr
65
Arg Asp Ala Val Ser Arg Tyr His Arg Ala Leu Leu Gln Leu Arg Gly
      85              90              95
Leu Asp Pro Xaa Ser Ala Leu Ser Val Thr
      100              105

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<210> 4905
 <211> 615
 <212> DNA
 <213> Homo sapiens

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<400> 4905
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180
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240
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<210> 4906
 <211> 144
 <212> PRT
 <213> Homo sapiens

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<400> 4906
Gly Gln Arg Leu Cys Leu Ala Ala Ala Ala Gly Thr Trp Ala Gly
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Cys Ala Glu Thr Leu Glu Asp Leu Asp Leu Ser Tyr Asn Asn Leu Glu
      20      25      30
Gln Leu Pro Trp Glu Ala Leu Gly Arg Leu Gly Asn Val Asn Thr Leu
      35      40      45
Gly Leu Asp His Asn Leu Leu Ala Ser Val Pro Ala Gly Ala Phe Ser
      50      55      60
Arg Leu His Lys Leu Ala Arg Leu Asp Met Thr Ser Asn Arg Leu Thr
65      70      75      80
Thr Ile Pro Pro Asp Pro Leu Phe Ser Arg Leu Pro Leu Leu Ala Arg

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	85		90		95										
Pro	Arg	Gly	Ser	Pro	Ala	Ser	Ala	Leu	Val	Leu	Ala	Phe	Gly	Gly	Asn
	100								105					110	
Pro	Leu	His	Cys	Asn	Cys	Glu	Leu	Val	Trp	Leu	Arg	Arg	Leu	Ala	Arg
	115						120						125		
Glu	Asp	Asp	Leu	Glu	Ala	Cys	Ala	Ser	Pro	Pro	Ala	Leu	Gly	Gly	Arg
	130						135						140		

<210> 4907
 <211> 1748
 <212> DNA
 <213> Homo sapiens

<400> 4907
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 180
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 240
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 420
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 1620
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 1680
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 1740
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 1748

<210> 4908
 <211> 55
 <212> PRT
 <213> Homo sapiens

<400> 4908
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 Pro Tyr Pro Cys Pro His Gly Asp Arg Leu Leu Pro Pro Ser Arg Pro
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 Leu Pro Ala Gly Pro Ala Ser Ala Phe Pro Pro Ala Glu Arg Ser Arg
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 Gly His Arg Arg Ala Ser Leu
 50 55

<210> 4909
 <211> 1960
 <212> DNA
 <213> Homo sapiens

<400> 4909
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<210> 4910

<211> 423

<212> PRT

<213> Homo sapiens

<400> 4910

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Ile Cys Arg Asn Tyr Arg Gly Asp Val Asp Met Ser Glu Val Glu His
 20
Phe Met Pro Ile Leu Met Glu Lys Glu Glu Gly Met Leu Ser Pro
 35          40          45
Ile Leu Ala His Gly Gly Val Arg Phe Met Trp Ile Lys His Asn Asn
 50          55          60
Leu Tyr Leu Val Ala Thr Ser Lys Lys Asn Ala Cys Val Ser Leu Val
 65          70          75
Phe Ser Phe Leu Tyr Lys Val Val Gln Val Phe Ser Glu Tyr Phe Lys
 85          90          95
Glu Leu Glu Glu Glu Ser Ile Arg Asp Asn Phe Val Ile Ile Tyr Glu
100          105          110
Leu Leu Asp Glu Leu Met Asp Phe Gly Phe Pro Gln Thr Thr Asp Ser
115          120          125
Lys Ile Leu Gln Glu Tyr Ile Thr Gln Gln Ser Asn Lys Leu Glu Thr
130          135          140
Gly Lys Ser Arg Val Pro Pro Thr Val Thr Asn Ala Val Ser Trp Arg
145          150          155
Ser Glu Gly Ile Lys Tyr Lys Lys Asn Glu Val Phe Ile Asp Val Ile
165          170          175
Glu Ser Val Asn Leu Leu Val Asn Ala Asn Gly Ser Val Leu Leu Ser
180          185          190
Glu Ile Val Gly Thr Ile Lys Met Arg Val Phe Leu Ser Gly Met Pro
195          200          205
Glu Leu Arg Leu Gly Leu Asn Asp Lys Val Leu Phe Asp Asn Thr Gly
210          215          220
Arg Gly Lys Ser Lys Ser Val Glu Leu Glu Asp Val Lys Phe His Gln
225          230          235
Cys Val Arg Leu Ser Arg Phe Glu Asn Asp Arg Thr Ile Ser Phe Ile
245          250          255
Pro Pro Asp Gly Glu Phe Glu Leu Met Ser Tyr Arg Leu Asn Thr His
260          265          270
Val Lys Pro Leu Ile Trp Ile Glu Ser Val Ile Glu Lys Phe Ser His
275          280          285
Ser Arg Ile Glu Tyr Met Val Lys Ala Lys Gly Gln Phe Lys Lys Gln
290          295          300
Ser Val Ala Asn Gly Val Glu Ile Ser Val Pro Val Pro Ser Asp Ala
305          310          315
Asp Ser Pro Arg Phe Lys Thr Ser Val Gly Ser Ala Lys Tyr Val Pro
325          330          335
Glu Arg Asn Val Val Ile Trp Ser Ile Lys Ser Phe Pro Gly Gly Lys
340          345          350
Glu Tyr Leu Met Arg Ala His Phe Gly Leu Pro Ser Val Glu Lys Glu
355          360          365
Glu Val Glu Gly Arg Pro Pro Ile Gly Val Lys Phe Glu Ile Pro Tyr

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<210> 4911
<211> 1862
<212> DNA
<213> Homo sapiens

<400> 4911
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<210> 4912

<211> 453

<212> PRT

<213> Homo sapiens

<400> 4912

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	210			Leu	His
Glu	Leu	Val	Ala	Phe	Tyr
	225			Val	Glu
Asn	Ala	His	Met	Glu	Thr
				Pro	Leu
Arg	Phe	Lys	Glu	Gln	Glu
				Tyr	Ser
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				Ala	Glu
Lys	Ser	Pro	Leu	His	Lys
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Ala	Ala	Gln	Pro	Glu	Ile
				Cys	Tyr
Ala	Arg	Ile	Tyr	Pro	Pro
				Gln	Phe
Ser	Cys	Pro	Lys	Ala	Ile
				Glu	Val
Arg	Trp	Asn	Thr	Lys	Trp
				Arg	Arg
Val	Asn	Asn	Arg	Phe	Pro
				Ser	Asn
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<210> 4913

<211> 2090

<212> DNA

<213> Homo sapiens

<400> 4913

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<211> 529

<212> PRT

<213> Homo sapiens

<400> 4914

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			20					25					30		
Asn	Pro	Asn	Pro	Leu	Ile	Asn	Val	Arg	Asp	Arg	Leu	Phe	His	Ala	Leu
			35				40					45			
Phe	Phe	Lys	Met	Ala	Val	Thr	Tyr	Ser	Arg	Leu	Phe	Pro	Pro	Ala	Phe
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Arg	Arg	Leu	Phe	Glu	Phe	Phe	Val	Leu	Leu	Lys	Ala	Leu	Phe	Val	Leu
				70						75				80	
Phe	Val	Leu	Ala	Tyr	Ile	His	Ile	Val	Phe	Ser	Arg	Ser	Pro	Ile	Asn
				85						90				95	
Cys	Leu	Glu	His	Val	Arg	Asp	Lys	Trp	Pro	Arg	Glu	Gly	Ile	Leu	Arg
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Val	Glu	Val	Arg	His	Asn	Ser	Ser	Arg	Ala	Pro	Val	Phe	Leu	Gln	Phe
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Cys	Asp	Ser	Gly	Gly	Arg	Gly	Ser	Phe	Pro	Gly	Leu	Ala	Val	Glu	Pro
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Gly	Ser	Asn	Leu	Asp	Met	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Leu	Thr	Met
				145		150				155				160	
Glu	Met	Phe	Gly	Asn	Ser	Ser	Ile	Lys	Phe	Glu	Leu	Asp	Ile	Glu	Pro
				165					170					175	
Lys	Val	Phe	Lys	Pro	Pro	Ser	Ser	Thr	Glu	Ala	Leu	Asn	Asp	Ser	Gln
			180					185					190		
Glu	Phe	Pro	Phe	Pro	Glu	Thr	Pro	Thr	Lys	Val	Trp	Pro	Gln	Asp	Glu
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Tyr	Ile	Val	Glu	Tyr	Ser	Leu	Glu	Tyr	Gly	Phe	Leu	Arg	Leu	Ser	Gln
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Ala	Thr	Arg	Gln	Arg	Leu	Ser	Ile	Pro	Val	Met	Val	Val	Thr	Leu	Asp
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Pro	Thr	Arg	Asp	Gln	Cys	Phe	Gly	Asp	Arg	Phe	Ser	Arg	Leu	Leu	Leu
				245				250					255		
Asp	Glu	Phe	Leu	Gly	Tyr	Asp	Asp	Ile	Leu	Met	Ser	Ser	Val	Lys	Gly
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Gly	Glu	His	Tyr	Arg	Phe	Val	Ser	Met	Trp	Met	Ala	Arg	Thr	Ser	Tyr
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Leu	Ala	Ala	Phe	Ala	Ile	Met	Val	Ile	Phe	Thr	Leu	Ser	Val	Ser	Met
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Leu	Leu	Arg	Tyr	Ser	His	His	Gln	Ile	Phe	Val	Phe	Ile	Val	Asp	Leu
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Leu	Gln	Met	Leu	Glu	Met	Asn	Met	Ala	Ile	Ala	Phe	Pro	Ala	Ala	Pro

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Leu	Leu	Thr	Val	Ile	Leu
	355		360		365
Glu	Phe	Phe	Asn	Asp	Thr
	370		375		380
Trp	Leu	Ala	Asp	Gln	Tyr
	385		390		395
Lys	Arg	His	Trp	Leu	Arg
	405		410		415
Ala	Tyr	His	Tyr	Arg	Phe
	420		425		430
Thr	Ser	Trp	Leu	Phe	Ile
	435		440		445
Tyr	Glu	Leu	Pro	Ala	Ile
	450		455		460
Leu	Gln	Ala	Pro	Pro	Leu
	465		470		475
Asp	Met	Asn	Asn	Asn	Ser
	485		490		495
Gly	Gln	Pro	Pro	Ala	Leu
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Arg	Gly	Trp	Gly	Ser	Ala
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<211> 1157

<212> DNA

<213> Homo sapiens

<400> 4915

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<211> 59

<212> PRT

<213> Homo sapiens

<400> 4916

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			20					25					30		
Trp	Gly	Pro	Gly	Gly	Asp	Ala	Pro	Arg	Gly	Ser	Gly	Leu	Lys	Arg	Pro
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<210> 4917

<211> 1544

<212> DNA

<213> Homo sapiens

<400> 4917

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<210> 4918

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4918

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 35 40 45
 Ala Ala Gly Ala Gly Arg Gly Gly Ala Arg Ala Val Arg Val Asp Val
 50 55 60
 Arg Leu Pro Arg Gln Asp Ala Leu Val Leu Glu Gly Val Arg Ile Gly

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<210> 4920

<211> 194

<212> PRT

<213> Homo sapiens

<400> 4920

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 35 40 45
 Glu Glu Lys Leu Ala Asp Leu Ser Leu Arg Ile Gln Gln Ile Glu Thr
 50 55 60
 Thr Leu Asn Ile Leu Asp Ala Lys Leu Ser Ser Ile Pro Gly Leu Asp
 65 70 75 80
 Asp Val Thr Val Glu Val Ser Pro Leu Asn Val Thr Ser Val Thr Asn
 85 90 95
 Gly Ala His Pro Glu Ala Thr Ser Glu Gln Pro Gln Gln Asn Ser Thr

	100		105		110
Gln Asp Ser	Gly Leu Gln Glu Ser	Glu Val Ser	Ala Glu Asn Ile Leu		
	115	120	125		
Thr Val Ala	Lys Asp Pro Arg Tyr	Ala Arg Tyr	Leu Lys Met Val Gln		
	130	135	140		
Val Gly Val	Pro Val Met Ala Ile	Arg Asn Lys	Met Ile Ser Glu Gly		
145	150	155	160		
Leu Asp Pro	Asp Leu Leu Glu Arg	Pro Asp Ala	Pro Val Pro Asp Gly		
	165	170	175		
Glu Ser Glu	Lys Thr Val Glu Glu	Ser Ser Asp	Ser Glu Ser Ser Phe		
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Ser Asp					

<210> 4921

<211> 1272

<212> DNA

<213> Homo sapiens

<400> 4921

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<210> 4922

<211> 342

<212> PRT

<213> Homo sapiens

<400> 4922

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 65 70 75 80
 Glu Ala Cys Thr Ser Pro Leu Ala Lys Thr His Thr Ser Gln Ala Ile
 85 90 95
 Leu Gln Pro Val Leu Ala Ala Glu Asp Phe Thr Ile Phe Lys Ala Met
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 Met Val Gln Lys Asn Ile Glu Met Gln Leu Gln Ala Ile Arg Ile Ile
 115 120 125
 Gln Glu Arg Asn Gly Val Leu Pro Asp Cys Leu Thr Asp Gly Ser Asp
 130 135 140
 Val Val Ser Asp Leu Glu His Glu Glu Met Lys Ile Leu Arg Glu Val
 145 150 155 160
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 165 170 175
 Lys Lys Gln Leu Ser Glu Ala Lys Thr Glu Glu Pro Thr Val His Ser
 180 185 190
 Ser Glu Ala Ala Ile Met Asn Asn Ser Gln Gly Asp Gly Glu His Phe
 195 200 205
 Ala His Pro Pro Ser Glu Val Lys Met His Phe Ala Asn Gln Ser Ile
 210 215 220
 Glu Pro Leu Gly Arg Lys Val Glu Arg Ser Glu Thr Ser Ser Leu Pro
 225 230 235 240
 Gln Lys Gly Leu Lys Ile Pro Gly Leu Glu His Ala Ser Ile Glu Gly
 245 250 255
 Pro Ile Ala Asn Leu Ser Val Leu Gly Thr Glu Glu Leu Arg Gln Arg
 260 265 270
 Glu His Tyr Leu Lys Gln Lys Arg Asp Lys Leu Met Ser Met Arg Lys
 275 280 285
 Asp Met Arg Thr Lys Gln Ile Gln Asn Met Glu Gln Lys Gly Lys Pro

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      290              295              300
Thr Gly Glu Val Glu Glu Met Thr Glu Lys Pro Glu Met Thr Ala Glu
305              310              315              320
Glu Lys Gln Thr Leu Leu Lys Arg Arg Leu Leu Ala Glu Lys Leu Lys
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Glu Glu Val Ile Asn Lys
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<210> 4923

<211> 765

<212> DNA

<213> Homo sapiens

<400> 4923

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180
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240
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300
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<210> 4924

<211> 255

<212> PRT

<213> Homo sapiens

<400> 4924

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Val Gly Ser Leu Lys Pro Ser Ala Pro Xaa Pro Arg Thr Ser Phe Ser
      20          25          30
Ser Ala Ser Arg Ser Ser Ser Ala Ser Lys Ser Ser Ser Val Pro
      35          40          45
Ser Ser Ser Ser Ser Ser Gly Ser Leu Met His Arg Leu Ala Ile Phe

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50		55		60
Ser Met Ala Ser Ile Gly Lys Gly Pro Leu Pro Leu Ser Phe Ser Arg				
65	70		75	80
Ala Gly Gly Trp Pro Thr Lys Ala Lys Asn Ser Ala Ser Ser Ser				
	85		90	95
Ser Ser Leu Ala Pro Ser Ser Gly Ile Ile Arg Pro Ser Gly Glu Arg				
	100		105	110
Ser Thr Ser Arg Pro Ser Trp Arg Ala Ala Ala Pro Leu Pro Gly				
	115		120	125
Gly Pro Gly Gly Pro Ser Ser Cys Ala Ser Ser Arg Leu Asp Ala Arg				
	130		135	140
Thr Thr Cys Pro Gln Ala Arg Pro Cys Pro Ala Pro Ser Pro Gly Ser				
	145		150	155
Val Ala Ala His Ser Pro Phe Leu Ser Pro Ala Leu Leu Val Gly Ala				
	165		170	175
Leu Arg Pro Val Asp Pro Glu Pro Ser Leu Pro Cys Leu Ala Val Pro				
	180		185	190
Leu Pro Pro Arg Ala Ser Gly Ala Ala Ala Pro Xaa Ser Ala Ala Ser				
	195		200	205
Trp Ala Arg Arg Gly Leu Pro Ser Arg Asn Tyr Asn Ser Arg Gln Ile				
	210		215	220
Ser Gln Gly Glu Asp Lys Met Thr Lys Arg Lys Lys Leu Arg Thr Ser				
	225		230	235
Ala Pro Leu Met Arg Lys Gln Asp Leu Pro Ala Gly Ser Ser Val				
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<210> 4925

<211> 374

<212> DNA

<213> Homo sapiens

<400> 4925

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 240
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 374

<210> 4925

<211> 124

<212> PRT

<213> Homo sapiens

<400> 4925

Ala Asn Leu Glu Lys Glu Leu Gln Glu Met Glu Ala Arg Tyr Glu Lys

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Glu Phe Gly Asp Gly Ser Asp Glu Asn Glu Met Glu Glu His Glu Leu			
	20	25	30
Lys Asp Glu Glu Asp Gly Lys Asp Ser Asp Glu Ala Glu Asp Ala Glu			
	35	40	45
Leu Tyr Asp Asp Leu Tyr Cys Pro Ala Cys Asp Lys Ser Phe Lys Thr			
	50	55	60
Glu Lys Ala Met Lys Asn His Glu Lys Ser Lys Lys His Arg Glu Met			
65	70	75	80
Val Ala Leu Leu Lys Gln Gln Leu Glu Glu Glu Glu Glu Asn Phe Ser			
	85	90	95
Arg Pro Gln Ile Asp Glu Asn Pro Leu Asp Asp Asn Ser Glu Glu Glu			
	100	105	110
Met Glu Asp Ala Pro Lys Gln Lys Leu Ser Lys Lys			
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<210> 4927

<211> 1649

<212> DNA

<213> Homo sapiens

<400> 4927

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180
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240
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300
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360
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840
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960

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<210> 4928

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4928

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 35 40 45
 Glu Ala Met Val Asn Glu Asn Val Ser Leu Val Ile Ser Arg Gln Leu
 50 55 60
 Leu Thr Asp Phe Cys Thr His Leu Pro Asn Leu Pro Asp Ser Thr Ala
 65 70 75 80
 Lys Glu Ile Tyr His Phe Thr Leu Glu Lys Ile Gln Pro Arg Val Ile
 85 90 95
 Ser Phe Glu Glu Gln Val Ala Ser Ile Arg Gln His Leu Ala Ser Ile
 100 105 110
 Tyr Glu Lys Glu Glu Asp Trp Arg Asn Ala Ala Gln Val Leu Val Gly
 115 120 125
 Ile Pro Leu Glu Thr Gly Gln Lys Gln Tyr Asn Val Asp Tyr Lys Leu
 130 135 140
 Glu Thr Tyr Leu Lys Ile Ala Arg Leu Tyr Leu Glu Asp Asp Asp Pro
 145 150 155 160
 Val Gln Ala Glu Ala Tyr Ile Asn Arg Ala Ser Leu Leu Gln Asn Glu
 165 170 175
 Ser Thr Asn Glu Gln Leu Gln Ile His Tyr Lys Val Cys Tyr Ala Arg

	180		185		190
Val	Leu	Asp	Tyr	Arg	Arg
	195			Lys	Phe
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					Glu
					Ala
					Ala
					Gln
					Arg
					Tyr
					Asn
Glu	Leu	Ser	Tyr	Lys	Thr
	210			Ile	Val
				215	His
					Glu
					Ser
					Glu
					Arg
					Leu
					Glu
					Ala
Leu	Lys	His	Ala	Leu	His
	225			Cys	Thr
				230	Ile
					Leu
					Ala
					Ser
					Ala
					Gly
					Gln
					Gln
Arg	Ser	Arg	Met	Leu	Ala
	245			Thr	Leu
				250	Phe
					Lys
					Asp
					Glu
					Arg
					Cys
					Gln
					Gln
Leu	Ala	Ala	Tyr	Gly	Ile
	260			Leu	Glu
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					Met
					Tyr
					Leu
					Asp
					Arg
					Ile
					Ile
Arg	Gly	Asn	Gln	Leu	Gln
	275			Glu	Phe
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					Met
					Leu
					Met
					Pro
					His
					Gln
Lys	Ala	Thr	Thr	Ala	Asp
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					Ile
					Leu
					Asp
					Arg
					Ala
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					Ile
Glu	His	Asn	Leu	Leu	Ser
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					Leu
					Tyr
					Asn
					Asn
					Ile
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				330	Ile
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					Ala
					Ala
					Lys
					Ala
					Glu
					Lys
Ile	Ala	Ser	Gln	Met	Ile
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					Arg
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					Asn
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					Phe
					Ile
					Asp
Gln	Ile	Asp	Gly	Ile	Val
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					Arg
					Glu
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					Leu
					Pro
Trp	Asp	Lys	Gln	Ile	Gln
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				375	Cys
					Phe
					Gln
					Val
					Asn
					Asn
					Leu
					Leu
Glu	Lys	Ile	Ser	Gln	Thr
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<211> 5907

<212> DNA

<213> Homo sapiens

<400> 4929

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<210> 4930

<211> 648

<212> PRT

<213> Homo sapiens

<400> 4930

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			20					25					30		
Val	Gln	Gln	Phe	Gly	Tyr	Gln	Arg	Arg	Ala	Ser	Asp	Asp	Gly	Lys	Leu
			35				40				45				
Thr	Asp	Pro	Ser	Lys	Thr	Ser	Asn	Thr	Ile	Arg	Val	Phe	Leu	Pro	Asn
	50				55					60					
Lys	Gln	Arg	Thr	Val	Val	Asn	Val	Arg	Asn	Gly	Met	Ser	Leu	His	Asp
65				70					75					80	
Cys	Leu	Met	Lys	Ala	Leu	Lys	Val	Arg	Gly	Leu	Gln	Pro	Glu	Cys	Cys
			85					90					95		
Ala	Val	Phe	Arg	Leu	Leu	His	Glu	His	Lys	Gly	Lys	Lys	Ala	Arg	Leu
			100				105						110		
Asp	Trp	Asn	Thr	Asp	Ala	Ala	Ser	Leu	Ile	Gly	Glu	Glu	Leu	Gln	Val
			115				120					125			
Asp	Phe	Leu	Asp	His	Val	Pro	Leu	Thr	Thr	His	Asn	Phe	Ala	Arg	Lys
	130				135					140					
Thr	Phe	Leu	Lys	Leu	Ala	Phe	Cys	Asp	Ile	Cys	Gln	Lys	Phe	Leu	Leu
145				150					155					160	
Asn	Gly	Phe	Arg	Cys	Gln	Thr	Cys	Gly	Tyr	Lys	Phe	His	Glu	His	Cys
			165					170					175		
Ser	Thr	Lys	Val	Pro	Thr	Met	Cys	Val	Asp	Trp	Ser	Asn	Ile	Arg	Gln
			180				185						190		
Leu	Leu	Leu	Phe	Pro	Asn	Ser	Thr	Ile	Gly	Asp	Ser	Gly	Val	Pro	Ala
			195				200					205			
Leu	Pro	Ser	Leu	Thr	Met	Arg	Arg	Met	Arg	Glu	Ser	Val	Ser	Arg	Met
	210				215							220			
Pro	Val	Ser	Ser	Gln	His	Arg	Tyr	Ser	Thr	Pro	His	Ala	Phe	Thr	Phe

225					230				235				240		
Asn	Thr	Ser	Ser	Pro	Ser	Ser	Glu	Gly	Ser	Leu	Ser	Gln	Arg	Gln	Arg
				245					250					255	
Ser	Thr	Ser	Thr	Pro	Asn	Val	His	Met	Val	Ser	Thr	Thr	Leu	Pro	Val
			260					265					270		
Asp	Ser	Arg	Met	Ile	Glu	Asp	Ala	Ile	Arg	Ser	His	Ser	Glu	Ser	Ala
		275					280					285			
Ser	Pro	Ser	Ala	Leu	Ser	Ser	Ser	Pro	Asn	Asn	Leu	Ser	Pro	Thr	Gly
						295				300					
Trp	Ser	Gln	Pro	Lys	Thr	Pro	Val	Pro	Ala	Gln	Arg	Glu	Arg	Ala	Pro
305					310					315				320	
Val	Ser	Gly	Thr	Gln	Glu	Lys	Asn	Lys	Ile	Arg	Pro	Arg	Gly	Gln	Arg
				325					330					335	
Asp	Ser	Ser	Tyr	Tyr	Trp	Glu	Ile	Glu	Ala	Ser	Glu	Val	Met	Leu	Ser
			340					345				350			
Thr	Arg	Ile	Gly	Ser	Gly	Ser	Phe	Gly	Thr	Val	Tyr	Lys	Gly	Lys	Trp
		355					360					365			
His	Gly	Asp	Val	Ala	Val	Lys	Ile	Leu	Lys	Val	Val	Asp	Pro	Thr	Pro
		370				375					380				
Glu	Gln	Phe	Gln	Ala	Phe	Arg	Asn	Glu	Val	Ala	Val	Leu	Arg	Lys	Thr
385					390					395				400	
Arg	His	Val	Asn	Ile	Leu	Leu	Phe	Met	Gly	Tyr	Met	Thr	Lys	Asp	Asn
			405						410					415	
Leu	Ala	Ile	Val	Thr	Gln	Trp	Cys	Glu	Gly	Ser	Ser	Leu	Tyr	Lys	His
			420					425				430			
Leu	His	Val	Gln	Glu	Thr	Lys	Phe	Gln	Met	Phe	Gln	Leu	Ile	Asp	Ile
		435					440					445			
Ala	Arg	Gln	Thr	Ala	Gln	Gly	Met	Asp	Tyr	Leu	His	Ala	Lys	Asn	Ile
		450				455					460				
Ile	His	Arg	Asp	Met	Lys	Ser	Asn	Asn	Ile	Phe	Leu	His	Glu	Gly	Leu
465					470					475				480	
Thr	Val	Lys	Ile	Gly	Asp	Phe	Gly	Leu	Ala	Thr	Val	Lys	Ser	Arg	Trp
				485					490					495	
Ser	Gly	Ser	Gln	Gln	Val	Glu	Gln	Pro	Thr	Gly	Ser	Val	Leu	Trp	Met
			500					505				510			
Ala	Pro	Glu	Val	Ile	Arg	Met	Gln	Asp	Asn	Asn	Pro	Phe	Ser	Phe	Gln
		515					520					525			
Ser	Asp	Val	Tyr	Ser	Tyr	Gly	Ile	Val	Leu	Tyr	Glu	Leu	Met	Thr	Gly
		530				535					540				
Glu	Leu	Pro	Tyr	Ser	His	Ile	Asn	Asn	Arg	Asp	Gln	Ile	Ile	Phe	Met
545					550				555					560	
Val	Gly	Arg	Gly	Tyr	Ala	Ser	Pro	Asp	Leu	Ser	Lys	Leu	Tyr	Lys	Asn
				565					570					575	
Cys	Pro	Lys	Ala	Met	Lys	Arg	Leu	Val	Ala	Asp	Cys	Val	Lys	Lys	Val
			580					585							

<210> 4931
 <211> 261
 <212> DNA
 <213> Homo sapiens

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 120
 taccogtatg cccatctctc agctgaggac tttaatatct atggccatgg gggccgccg
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 240
 gcacccctgg accgctcaac n
 261

<210> 4932
 <211> 87
 <212> PRT
 <213> Homo sapiens

<400> 4932
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 20 25 30
 Thr Gln Gly Thr Arg Lys Ile Leu Tyr Pro Tyr Ala His Leu Ser Ala
 35 40 45
 Glu Asp Phe Asn Ile Tyr Gly His Gly Gly Arg Gln Phe Trp Leu Val
 50 55 60
 Ser Ser Cys Phe Phe Phe Leu Leu Gly Gly Ala Ser Thr Cys Met Arg
 65 70 75 80
 Ala Ser Trp His Arg Ser Thr
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<210> 4933
 <211> 975
 <212> DNA
 <213> Homo sapiens

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 120
 ccaagggtg ggcattggcg caccgctggt tcacctctc tcgtctctcc ccacaggtgt
 180
 gcttcccgca cagctgcagc catggggctc gaggaaccag gcgccagaa cccagctgt
 240
 aaaatcatga cgtttcgccc aacctggaa gaatttaag acttcaacaa atactggcc
 300
 tacatagagt cgcagggagc ccaccgggag ggctggcca agatcatccc ccgaaggag
 360

tggaagccgc ggcagacgta tgaatgacatc gacgacgtgg tgatccgggc gcccatccag
 420
 cagggtggtga cggggccagtc gggcctcttc acgcagtaca atatccagaa gaaggccatg
 480
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 540
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 660
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 720
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 780
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 840
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<210> 4934

<211> 181

<212> PRT

<213> Homo sapiens

<400> 4934

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Thr	Phe	Arg	Pro	Thr	Met	Glu	Glu	Phe	Lys	Asp	Phe	Asn	Lys	Tyr	Val
			20					25					30		
Ala	Tyr	Ile	Glu	Ser	Gln	Gly	Ala	His	Arg	Ala	Gly	Leu	Ala	Lys	Ile
			35					40					45		
Ile	Pro	Pro	Lys	Glu	Trp	Lys	Pro	Arg	Gln	Thr	Tyr	Asp	Asp	Ile	Asp
			50					55				60			
Asp	Val	Val	Ile	Pro	Ala	Pro	Ile	Gln	Gln	Val	Val	Thr	Gly	Gln	Ser
					70					75				80	
Gly	Leu	Phe	Thr	Gln	Tyr	Asn	Ile	Gln	Lys	Lys	Ala	Met	Thr	Val	Gly
				85						90				95	
Glu	Tyr	Arg	Arg	Leu	Ala	Asn	Ser	Glu	Lys	Tyr	Cys	Thr	Pro	Arg	His
				100					105				110		
Gln	Asp	Phe	Asp	Asp	Leu	Glu	Arg	Lys	Tyr	Trp	Lys	Asn	Leu	Thr	Phe
				115				120				125			
Val	Ser	Pro	Ile	Tyr	Gly	Ala	Asp	Ile	Ser	Gly	Ser	Leu	Tyr	Asp	Asp
				130				135				140			
Val	Ser	Met	Arg	Leu	Arg	Gly	Arg	Thr	Gly	Thr	Ser	Phe	Leu	Val	Gly
					150					155				160	
Gly	Gly	Gly	Arg	Ala	Leu	Asn	Gly	Thr	Leu	Pro	Trp	Gln	Met	Lys	Leu
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Pro	Gly	Arg	Gln	Gly											
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<210> 4935
<211> 1668
<212> DNA
<213> Homo sapiens

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240
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300
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360
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420
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480
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540
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600
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660
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720
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780
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1320
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1380
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1440

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 1560
 ttctggcaat ccacagaaag agaagagcct taatttttaa aacccatttt agtcatttta
 1620
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 1668

<210> 4936
 <211> 337
 <212> PRT
 <213> Homo sapiens

<400> 4936
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 20 25 30
 Gly Leu Leu Cys Val Cys Trp Ser Pro Asp Gly Lys Tyr Ile Val Thr
 35 40 45
 Gly Gly Glu Asp Asp Leu Val Thr Val Trp Ser Phe Val Asp Cys Arg
 50 55 60
 Val Ile Ala Arg Gly His Gly His Lys Ser Trp Val Ser Val Val Ala
 65 70 75 80
 Phe Asp Pro Tyr Thr Thr Ser Val Glu Glu Gly Asp Pro Met Glu Phe
 85 90 95
 Ser Gly Ser Asp Glu Asp Phe Gln Asp Leu Leu His Phe Gly Glu Ile
 100 105 110
 Glu Gln Ile Val His Ser Pro Gly Ser Pro Asn Gly Thr Leu Gln Thr
 115 120 125
 Ala Ala Pro Ser Val Thr Tyr Arg Phe Gly Ser Val Gly Gln Asp Thr
 130 135 140
 Gln Leu Cys Leu Trp Asp Leu Thr Glu Asp Ile Leu Phe Pro His Gln
 145 150 155 160
 Pro Leu Ser Arg Ala Arg Thr His Thr Asn Val Met Asn Ala Thr Ser
 165 170 175
 Pro Pro Ala Gly Ser Asn Gly Asn Ser Val Thr Thr Pro Gly Asn Ser
 180 185 190
 Val Pro Pro Leu Pro Arg Ser Asn Ser Leu Pro His Ser Ala Val
 195 200 205
 Ser Asn Ala Gly Ser Lys Ser Ser Val Met Asp Gly Ala Ile Ala Ser
 210 215 220
 Gly Val Ser Lys Phe Ala Thr Leu Ser Leu His Asp Arg Lys Glu Arg
 225 230 235 240
 His His Glu Lys Asp His Lys Arg Asn His Ser Met Gly His Ile Ser
 245 250 255
 Ser Lys Ser Ser Asp Lys Leu Asn Leu Val Thr Lys Thr Lys Thr Asp
 260 265 270
 Pro Ala Lys Thr Leu Gly Thr Pro Leu Cys Pro Arg Met Glu Asp Val
 275 280 285
 Pro Leu Leu Glu Pro Leu Ile Cys Lys Lys Ile Ala His Glu Arg Leu
 290 295 300
 Thr Val Leu Ile Phe Leu Glu Asp Cys Ile Val Thr Ala Cys Gln Glu

Gly Phe Ile Cys Thr Trp Gly Arg Pro Gly Lys Val Val Ser Phe Asn

305 310 315 320
 325 330 335

Pro

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<210> 4937
<211> 715
<212> DNA
<213> Homo sapiens
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120
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240
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480
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540
aggctctcag cgccaggccc agggtaacct gcagcccagc cgatggtacc attggctggt
600
gtctccactg aggtctttgag aaggtaatgt ggagagccac ttgccctctc cctgtgtccc
660
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715

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<210> 4938
<211> 109
<212> PRT
<213> Homo sapiens
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		20				25				30							
Val	Ala	Glu	Pro	Trp	Pro	Thr	Arg	Ser	Gln	Gly	Gly	Arg	Gln	Pro	Gly		
		35				40				45							
Cys	Thr	Leu	Thr	Leu	Gly	Val	Cys	Ala	Asp	Gly	Arg	Trp	Glu	Glu	Thr		
		50				55				60							
Asp	Gln	Gln	Glu	Val	Phe	Ser	Ser	Gly	Val	Ala	Ser	Pro	Thr	Leu	Asn		
65				70				75				80					
Leu	Arg	Ala	Ser	Ser	Ser	Pro	Ala	Lys	Ala	Arg	Ala	Leu	Ser	Arg	Pro		

85 90 95
 Trp Ala Leu Tyr Lys Gln Arg Glu Ala Pro Glu Leu Val
 100 105

<210> 4939
 <211> 730
 <212> DNA
 <213> Homo sapiens

<400> 4939
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 120
 tgggccteta cccgccctcc ccaaggtect cctccctgg actcaaaagc ctctacttgg
 180
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 300
 ctttccaaag cttcaccagc gccagcagcg ctgatgtgtg ggaccacatc acccccata
 360
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 420
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 540
 tccagctctt ggttctctga gacagatgcc tctcctctct cagttccaca tccgcgctcc
 600
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 720
 ccateggcgc
 730

<210> 4940
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 4940
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 Ala Val Trp Glu Pro Ala Gly Ser Ser Pro Gln Leu Ser Ser Ala Pro
 20 25 30
 Ala Asp Ser Ser Ala Ser Thr Arg Pro Pro Gln Gly Pro Pro Ser Leu
 35 40 45
 Asp Ser Lys Ala Ser Thr Trp Leu Pro Leu Pro Val Thr Ser Ser Ser
 50 55 60
 Ala Glu Pro Ser Arg Pro Asn Ser Cys Pro Pro Ala Cys Ser Pro Ala
 65 70 75 80
 Ala Ala Ser Ser Phe Ser Phe Glu Ser Gln Pro Cys Pro Ser Ala Pro

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      85              90              95
Ser Lys Ala Ser Pro Ala Pro Ala Ala Leu Met Cys Gly Thr Thr Ser
      100              105              110
Pro Pro Ile Ile Pro Ala Ala Thr Glu Pro Val Cys Ala Ser Ser Arg
      115              120              125
Ser Gly Arg Pro Thr Ala Thr Ala Cys Ser Leu Gln Pro Leu Leu Asp
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Val Leu Ser Ala Ser Ala Ser Ser Ser Val Ser Leu Ala
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<210> 4941
<211> 1718
<212> DNA
<213> Homo sapiens

<400> 4941
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1140

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<210> 4942

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4942

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Ile	Gln	Val	His	Tyr	His	Ile	Gly	Leu	Asn	Leu	Pro	Gly	Cys	Val	Ala
			20					25					30		
Pro	Pro	Lys	Asp	Thr	Lys	Lys	Gly	Ala	Gln	Pro	Ser	Pro	Phe	Val	Pro
		35					40					45			
Val	Arg	Trp	Val	Val	Lys	Val	Val	Lys	Thr	Leu	Leu	Arg	Met	Gly	
		50				55				60					
Cys	Ser	Tyr	Glu	Thr	Thr	Phe	Leu	Glu	Asp	Gln	Gly	Gly	Trp	Glu	Leu
65					70				75				80		
Met	Glu	Gln	Val	Glu	Ser	His	His	Arg	Gly	Val	Ala	Leu	Leu	Ala	Arg
			85						90				95		
Ala	Met	Val	Gln	Tyr	Ser	Cys	Gln	Glu	Leu	Cys	Arg	Ile	Leu	Tyr	Leu
			100					105					110		
Leu	Ile	Pro	Leu	Leu	Glu	Arg	Gly	Asp	Glu	Lys	His	Arg	Ile	Thr	Ala
			115				120					125			
Thr	Ala	Phe	Phe	Val	Glu	Leu	Gln	Met	Glu	Gln	Val	Arg	Arg	Ile	
			130				135				140				
Pro	Glu	Glu	Tyr	Ser	Leu	Gly	Arg	Met	Ala	Glu	Gly	Leu	Ser	His	His
145					150					155				160	
Asp	Pro	Ile	Met	Lys	Val	Leu	Ser	Ile	Arg	Gly	Leu	Val	Ile	Leu	Ala
			165						170					175	
Arg	Arg	Ser	Glu	Lys	Thr	Ala	Lys	Val	Lys	Ala	Leu	Leu	Pro	Ser	Met
			180					185					190		
Val	Lys	Gly	Leu	Lys	Asn	Met	Asp	Gly	Met	Leu	Val	Val	Glu	Ala	Val
			195				200					205			
His	Asn	Leu	Lys	Ala	Val	Phe	Lys	Gly	Arg	Asp	Gln	Lys	Leu	Met	Asp

210	215	220
Ser Ala Val Tyr Val Glu Met Leu Gln Ile Leu Leu Pro His Phe Ser		
225	230	235
Asp Ala Arg Glu Val Val Arg Ser Ser Cys Ile Asn Leu Tyr Gly Lys		240
	245	250
Val Val Gln Lys Leu Arg Ala Pro Arg Thr Gln Ala Met Glu Glu Gln		255
	260	265
Leu Val Ser Thr Leu Val Pro Leu Leu Leu Thr Met Gln Glu Gly Asn		270
	275	280
Ser Lys Val Ser Gln Lys Cys Val Lys Thr Leu Leu Arg Cys Ser Tyr		285
	290	295
Phe Met Ala Trp Glu Leu Pro Lys Arg Ala Tyr Ser Arg Lys Pro Trp		300
	305	310
Asp Asn Gln Gln Gln Thr Val Ala Lys Ile Cys Lys Cys Leu Val Asn		315
	325	330
Thr His Arg Asp Ser Ala Phe Ile Phe Leu Ser Gln Ser Leu Glu Tyr		335
	340	345
Ala Lys Asn Ser Arg Ala Ser Leu Arg Lys Cys Ser Val Met Phe Ile		350
	355	360
Gly Ser Leu Val Pro Cys Met Glu Ser Ile Met Thr Glu Asp Arg Leu		365
	370	375
Asn Glu Val Lys Ala Ala Leu Asp Asn Leu Arg His Asp Pro Glu Ala		380
	385	390
Ser Val Cys Ile Tyr Ala Ala Gln Val Gln Asp His Ile Leu Ala Ser		395
	405	410
Cys Trp Gln Asn Ser Trp Leu Pro His Gly Asn Ser Trp Val Cys Tyr		415
	420	425
Ser Ala Thr Thr His Arg Trp Ser Pro Ser Cys Glu Asn Leu Pro Thr		430
	435	440
Ser His Gln Arg Arg Ser Trp Ile Met Gln Ala Leu Gly Ser Trp Lys		445
	450	455
Met Ser Leu Lys Lys		460
465		

<210> 4943

<211> 1020

<212> DNA

<213> Homo sapiens

<400> 4943

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 180
 ctggccttt ttctgcctca gttgggggat ttcttaaacg tagaataccc gcgtttccgc
 240
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 300
 cagttttctt gctcatcaca cggccttcgg cactgtagct ttgggtgggt ggctgcagat
 360
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 420

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 480
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 1020

<210> 4944

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4944

Met	Ser	Ser	Leu	Ser	Glu	Tyr	Ala	Phe	Arg	Met	Ser	Arg	Leu	Ser	Ala
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Arg	Leu	Phe	Gly	Glu	Val	Thr	Arg	Pro	Thr	Asn	Ser	Lys	Ser	Met	Lys
			20					25				30			
Val	Val	Lys	Leu	Phe	Ser	Glu	Leu	Pro	Leu	Ala	Lys	Lys	Lys	Glu	Thr
			35				40				45				
Tyr	Asp	Trp	Tyr	Pro	Asn	His	His	Thr	Tyr	Ala	Glu	Leu	Met	Gln	Thr
	50					55			60						
Leu	Arg	Phe	Leu	Gly	Leu	Tyr	Arg	Asp	Glu	His	Gln	Asp	Phe	Met	Asp
65				70				75				80			
Glu	Gln	Lys	Arg	Leu	Lys	Lys	Leu	Arg	Gly	Lys	Glu	Lys	Pro	Lys	Lys
			85					90				95			
Gly	Glu	Gly	Lys	Arg	Ala	Ala	Lys	Arg	Lys						
			100					105							

<210> 4945

<211> 1792

<212> DNA

<213> Homo sapiens

<400> 4945

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cttgagctca gcctacagta tgacatggct ctggccactc tcagggagga cctgacacgg
240
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300
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420
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780
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1792

<210> 4946
 <211> 197
 <212> PRT
 <213> Homo sapiens

<400> 4946
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 Pro Pro Gly Gln Glu Tyr Arg Met Tyr Asn Thr Tyr Asp Val His Phe
 35 40 45
 Tyr Ala Ser Phe Ala Leu Ile Met Leu Trp Pro Lys Leu Glu Leu Ser
 50 55 60
 Leu Gln Tyr Asp Met Ala Leu Ala Thr Leu Arg Glu Asp Leu Thr Arg
 65 70 75 80
 Arg Arg Tyr Leu Met Ser Gly Val Met Ala Pro Val Lys Arg Arg Asn
 85 90 95
 Val Ile Pro His Asp Ile Gly Asp Pro Asp Asp Glu Pro Trp Leu Arg
 100 105 110
 Val Asn Ala Tyr Leu Ile His Asp Thr Ala Asp Trp Lys Asp Leu Asn
 115 120 125
 Leu Lys Phe Val Leu Gln Val Tyr Arg Asp Tyr Tyr Leu Thr Gly Asp
 130 135 140
 Gln Asn Phe Leu Lys Asp Met Trp Pro Val Cys Leu Val Arg Asp Ala
 145 150 155 160
 His Ala Val Ala Ser Val Pro Gly Val Trp Leu Val Ser Gly Lys Ser
 165 170 175
 Leu Ala Gly Cys Cys Leu Ser Ser Val Pro Arg Ser Ser Thr Ser Trp
 180 185 190
 Ser Leu Ser Arg Leu
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<210> 4947
 <211> 2060
 <212> DNA
 <213> Homo sapiens

<400> 4947
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 420

gtgggtgccta accccaggcc gagtgtgact cattccacct tgcagttaaa gcagtggaag
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2060

<210> 4948

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4948

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      20             25             30
Val Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn
      35             40             45
Trp Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu
      50             55             60
Leu Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg
      65             70             75             80
Phe Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala
      85             90             95
Lys Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly
      100            105            110
Ala Ala Val Thr Leu Lys Asn Leu Thr Xaa Leu Asn Gln Arg Arg
      115            120            125
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<210> 4949

<211> 1259

<212> DNA

<213> Homo sapiens

<400> 4949

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  120
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  180
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  240
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  300
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  360
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  420
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  480
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  540
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  660
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 780
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 1140
 ccctaaaca gctgcatttc ttggtgttcc ttaaacagac ttgtatatct tgatacagtt
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 1259

<210> 4950

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4950

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		20					25					30		
Lys	Asn	Phe	Gly	Gly	Gly	Asn	Thr	Ala	Trp	Glu	Glu	Lys	Thr	Leu
	35					40						45		
Lys	Tyr	Glu	Ser	Ser	Glu	Ile	Arg	Leu	Leu	Glu	Ile	Leu	Glu	Gly
	50					55				60				
Cys	Glu	Ser	Ser	Asp	Phe	Glu	Cys	Asn	Gln	Met	Leu	Glu	Ala	Gln
	65				70				75				80	
Glu	His	Leu	Glu	Ala	Trp	Trp	Leu	Gln	Leu	Lys	Ser	Glu	Tyr	Pro
		85					90					95		
Leu	Phe	Glu	Trp	Phe	Cys	Val	Lys	Thr	Leu	Lys	Val	Cys	Cys	Ser
		100					105					110		
Gly	Thr	Tyr	Gly	Pro	Asp	Cys	Leu	Ala	Cys	Gln	Gly	Gly	Ser	Gln
	115					120						125		
Pro	Cys	Ser	Gly	Asn	Gly	His	Cys	Ser	Gly	Asp	Gly	Ser	Arg	Gln
	130					135					140			
Asp	Gly	Ser	Cys	Arg	Cys	His	Met	Gly	Tyr	Gln	Gly	Pro	Leu	Cys
	145				150					155				160
Asp	Cys	Met	Asp	Gly	Tyr	Phe	Ser	Ser	Leu	Arg	Asn	Glu	Thr	His
		165							170				175	
Ile	Cys	Thr	Ala	Cys	Asp	Glu	Ser	Cys	Lys	Thr	Cys	Ser	Gly	Leu
		180						185					190	
Asn	Arg	Asp	Cys	Gly	Glu	Cys	Glu	Val	Gly	Trp	Val	Leu	Asp	Glu
		195					200					205		
Ala	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Ala	Glu	Pro	Pro	Pro	Cys
														Ser

210	215	220
Ala Ala Gln Phe Cys Lys Asn Ala Asn Gly Ser Tyr Thr Cys Glu Glu		
225	230	235
Cys Asp Ser Ser Cys Val Gly Cys Thr Gly Glu Gly Pro Gly Asn Cys		240
	245	250
Lys Glu Cys Ile Ser Gly Tyr Ala Arg Glu His Gly Gln Cys Ala Asp		
260	265	270
Val Asp Glu Cys Ser Leu Ala Glu Lys Thr Cys Val Arg Lys Asn Glu		
275	280	285
Asn Cys Tyr Asn Thr Pro Gly Ser Tyr Val Cys Val Cys Pro Asp Gly		
290	295	300
Phe Glu Glu Xaa Gly Arg Cys Leu Cys Ala Ala Gly Arg Gly		
305	310	315

<210> 4951

<211> 1835

<212> DNA

<213> Homo sapiens

<400> 4951

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 120
 agcgcagcact tccgccctcc ttagggccgt ggtcccgtag ctaccggctg cgctcccgctg
 180
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 240
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 300
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 360
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 960
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 1020

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<210> 4952

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4952

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 20 25 30
 Val Pro Arg Ala Phe His Ala Ser Ala Val Gly Leu Arg Ser Ser Asp
 35 40 45
 Glu Gln Lys Gln Gln Pro Pro Asn Ser Phe Ser Gln Gln His Ser Glu
 50 55 60
 Thr Gln Gly Ala Glu Lys Pro Asp Pro Glu Ser Ser His Ser Pro Pro
 65 70 75 80
 Arg Tyr Thr Asp Gln Gly Gly Glu Glu Glu Glu Asp Tyr Glu Ser Glu
 85 90 95
 Glu Gln Leu Gln His Arg Ile Leu Thr Ala Ala Leu Glu Phe Val Pro
 100 105 110
 Ala His Gly Trp Thr Ala Glu Ala Ile Ala Glu Gly Ala Gln Ser Leu
 115 120 125
 Gly Leu Ser Ser Ala Ala Ala Ser Met Phe Gly Arg Met Gly Ser Glu
 130 135 140
 Leu Ile Leu His Phe Val Thr Gln Cys Asn Thr Arg Leu Thr Arg Val

```

145          150          155          160
Leu Glu Glu Glu Gln Lys Leu Val Gln Leu Gly Gln Ala Glu Lys Arg
          165          170          175
Lys Thr Asp Gln Phe Leu Arg Asp Ala Val Glu Thr Arg Leu Arg Met
          180          185          190
Leu Ile Pro Tyr Ile Glu His Trp Pro Arg Ala Leu Ser Ile Leu Met
          195          200          205
Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Leu Thr Ser Met Val
          210          215          220
Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn Trp
          225          230          235
Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu Leu
          245          250          255
Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg Phe
          260          265          270
Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala Lys
          275          280          285
Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly Ala
          290          295          300
Ala Val Thr Leu Lys Asn Leu Thr Gly Leu Asn Gln Arg Arg
          305          310          315

```

<210> 4953

<211> 355

<212> DNA

<213> Homo sapiens

<400> 4953

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120
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180
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240
tccgatttgg atagaccctc ttgggaccca ctgcaccagg gaaccccaaa tgcagctcag
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355

```

<210> 4954

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4954

```

Met Ala Gly Gly Arg Gln Asp Arg Arg Ala Gln Ala Trp Thr Pro Leu
1          5          10
Ser Ala Trp Gly Cys Leu Ala Ala Ser Pro Val Leu Gly Ala Gly Ile
          20          25          30
Thr Trp Pro Arg Val Pro Pro Gly Gly Ser Leu Lys Glu Gly Arg Ala
          35          40          45
Val Gly Arg Ser Gln Arg Gly Pro Thr Pro Gln Asn Ala His Lys Ser

```



```

      50              55              60
Trp Asn Gln Leu Val Thr Ala Ala Gly Pro Ser Arg Pro Ile Trp Ile
65              70              75              80
Asp Pro Leu Gly Thr His Cys Thr Arg Glu Pro Gln Met Gln Leu Ser
      85              90              95
Ser Met Gly Gly Ala Leu Ser Ala Gly Gly Val Trp Asp Arg Arg Arg
100              105              110
Glu Ala

```

<210> 4955

<211> 364

<212> DNA

<213> Homo sapiens

<400> 4955

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aactgcaaga caggggtggcc ggggacacca gcctccgccc ttctgtgaca taaggacaag
120
agctcagcct gcccgaggaac aactctgggc aagagatgtg gaaagaaaga gctcangggg
180
gggcacgcat ggcacatctg ggggacatct gagggcacc ccacccacta ttctccctc
240
caaggtggcc tctgagtgtg aaggcagggg gaagcagaca cctgcccttc actctccctc
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360
ggggg
364

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<210> 4956

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4956

```

Met Gly Thr Glu His Leu Gly Leu Arg Pro Glu Glu Gln Thr Ala Arg
1              5              10              15
Gln Gly Gly Arg Gly His Gln Pro Pro Phe Cys Asp Ile Arg Thr
20              25              30
Arg Ala Gln Pro Ala Gln Glu Gln Leu Trp Ala Arg Asp Val Glu Arg
35              40              45
Lys Ser Ser Xaa Gly Gly Thr His Gly Ile Leu Gly Gly His Leu Arg
50              55              60
Ala Pro Pro Pro Thr Ile Pro Pro Ser Lys Val Ala Ser Glu Cys Glu
65              70              75              80
Gly Arg Gly Lys Gln Thr Pro Ala Pro His Ser Pro Ser Leu Pro His
85              90              95
Ser Tyr Arg Val Gly Gly Val Pro Gly Met Ile Pro Glu Gly Arg Ile
100              105              110
Gln Gly

```

<210> 4957

<211> 872

<212> DNA

<213> Homo sapiens

<400> 4957

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180
aaccacagc accctctgca gtctcggagg gaaaaggagc agtaacatga agtgcttgaa
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gatccatttc accctcttttc catgtgaatc atgacgcttt caatgcattt cttgacagga
300
ttctattttg aaagaatgat gctcaactcg taccttttat gcttcttggt tcttctccat
360
caataatatg toagtcaact gcttgtcaga gaccttagc tgctgacagg tctcataaac
420
ctgactcagg taaactgcca agagatgctt gcacaggatg ctgtcactct tccgtagcac
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780
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```

<210> 4958

<211> 51

<212> PRT

<213> Homo sapiens

<400> 4958

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Gln Ile Phe Ile Arg Asn Ser Val Pro Tyr Phe Ala Arg Ser Pro Ala
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Pro Pro Pro Pro Ser Arg Ser Gly Ala Pro Pro Gln Pro Pro Ala Thr
20          25          30
Thr Ala Ile Ala Pro Gln Asp Thr Pro Ser Thr Thr Arg Thr Ala Arg
35          40          45
Arg Ser Ser
50

```

<210> 4959

<211> 449

<212> DNA

<213> Homo sapiens

<400> 4959

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 120
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<210> 4960

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4960

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 20 25 30
 Ile Trp Arg Ile Arg Cys Phe Ser Pro Ile Ser Gln Gly Trp Lys Leu
 35 40 45
 Ala Ser Ile Leu Arg Trp Pro Glu Ala Leu Pro Leu Arg Gln Ile Met
 50 55 60
 Thr Pro Asp Ala Ser Ser Pro Leu Tyr Pro Cys His Met Glu Gly Pro
 65 70 75 80
 Lys His Leu Ala Leu Asn Cys Lys Trp Lys Pro Pro Gln Pro Leu His
 85 90 95
 Gln Pro Pro Ala Lys Glu Thr Thr Thr Thr Ile Cys Ile Pro Ser Leu
 100 105 110
 Asp Thr Arg
 115

<210> 4961

<211> 4737

<212> DNA

<213> Homo sapiens

<400> 4961

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 120

tccaagaaca gcaagcgtgc ccgggagaag cgcgacagcc gcaacatgga agtacaggctc
180
acccaggaga tgcgcaacgt cagtataggc atgggcagca gtgacgagtg gtctgatggt
240
caagacatta ttgactccac gccagagctg gacatgtgtc cagagacccg cctggaccgc
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360
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420
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540
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<210> 4962

<211> 1069

<212> PRT

<213> Homo sapiens

<400> 4962

Ala Ala Ala Thr Pro Ser Thr Thr Gly Thr Lys Ser Asn Thr Pro Thr

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Ser Ser Val Pro Ser Ala Ala Val Thr Pro Leu Asn Glu Ser Leu Gln			
20		25	30
Pro Leu Gly Asp Tyr Gly Val Gly Ser Lys Asn Ser Lys Arg Ala Arg			
35		40	45
Glu Lys Arg Asp Ser Arg Asn Met Glu Val Gln Val Thr Gln Glu Met			
50	55	60	
Arg Asn Val Ser Ile Gly Met Gly Ser Ser Asp Glu Trp Ser Asp Val			
65	70	75	80
Gln Asp Ile Ile Asp Ser Thr Pro Glu Leu Asp Met Cys Pro Glu Thr			
85		90	95
Arg Leu Asp Arg Thr Gly Ser Ser Pro Thr Gln Gly Ile Val Asn Lys			
100		105	110
Ala Phe Gly Ile Asn Thr Asp Ser Leu Tyr His Glu Leu Ser Thr Ala			
115		120	125
Gly Ser Glu Val Ile Gly Asp Val Asp Glu Gly Ala Asp Leu Leu Gly			
130	135	140	
Glu Phe Ser Gly Met Gly Lys Glu Val Gly Asn Leu Leu Leu Glu Asn			
145	150	155	160
Ser Gln Leu Leu Glu Thr Lys Asn Ala Leu Asn Val Val Lys Asn Asp			
165		170	175
Leu Ile Ala Lys Val Asp Gln Leu Ser Gly Glu Gln Glu Val Leu Arg			
180		185	190
Gly Glu Leu Glu Ala Ala Lys Gln Ala Lys Val Lys Leu Glu Asn Arg			
195	200	205	
Ile Lys Glu Leu Glu Glu Glu Leu Lys Arg Val Lys Ser Glu Ala Ile			
210	215	220	
Ile Ala Arg Arg Glu Pro Lys Glu Glu Ala Glu Asp Val Ser Ser Tyr			
225	230	235	240
Leu Cys Thr Glu Ser Asp Lys Ile Pro Met Ala Gln Arg Arg Arg Phe			
245		250	255
Thr Arg Val Glu Met Ala Arg Val Leu Met Glu Arg Asn Gln Tyr Lys			
260		265	270
Glu Arg Leu Met Glu Leu Gln Glu Ala Val Arg Trp Thr Glu Met Ile			
275	280	285	
Arg Ala Ser Arg Glu His Pro Ser Val Gln Glu Lys Lys Ser Thr			
290	295	300	
Ile Trp Gln Phe Phe Ser Arg Leu Phe Ser Ser Ser Ser Pro Pro			
305	310	315	320
Pro Ala Lys Arg Pro Tyr Pro Ser Val Asn Ile His Tyr Lys Ser Pro			
325		330	335
Thr Thr Ala Gly Phe Ser Gln Arg Arg Asn His Ala Met Cys Pro Ile			
340	345	350	
Ser Ala Gly Ser Arg Pro Leu Glu Phe Phe Pro Asp Asp Asp Cys Thr			
355	360	365	
Ser Ser Ala Arg Arg Glu Gln Lys Arg Glu Gln Tyr Arg Gln Val Arg			
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      900          905          910
Gly Gln Leu Leu Gly Leu Arg Ala Asn Lys Thr Ser Pro Thr Ser Gly
      915          920          925
Glu Gly Ala Arg Pro Gly Gly Ile Ile His Val Tyr Gly Asp Asp Ser
      930          935          940
Ser Asp Arg Ala Ala Ser Ser Phe Ile Pro Tyr Cys Ser Met Ala Gln
      945          950          955          960
Ala Gln Leu Cys Phe His Gly His Arg Asp Ala Val Lys Phe Phe Val
      965          970          975
Ser Val Pro Gly Asn Val Leu Ala Thr Leu Asn Gly Ser Val Leu Asp
      980          985          990
Ser Pro Ala Glu Gly Pro Gly Pro Ala Ala Pro Ala Ser Glu Val Glu
      995          1000          1005
Gly Gln Lys Leu Arg Asn Val Leu Val Leu Ser Gly Gly Glu Gly Tyr
      1010          1015          1020
Ile Asp Phe Arg Ile Gly Asp Gly Glu Asp Asp Glu Thr Glu Glu Gly
      1025          1030          1035          1040
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<211> 1575

<212> DNA

<213> Homo sapiens

<400> 4963

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<211> 304

<212> PRT

<213> Homo sapiens

<400> 4964

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 Asp Asp Val Ser Thr Trp Val Ala Ala Glu Ile Val Thr Ser His Thr
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 Ser Lys Leu Gln Val Asn Leu Leu Ser Lys Phe Xaa Leu Ile Ala Lys

	115		120		125
Ser	Cys	Tyr	Glu	Gln	Arg
130				Asn	Phe
				135	Ala
Gly	Leu	Glu	His	Leu	Ala
145				Val	Arg
				150	Gln
Pro	Ala	Lys	Ile	Ala	Glu
				Val	Met
				165	Glu
				170	Glu
Phe	Leu	Lys	Ser	Asp	Ser
				180	Leu
				185	Cys
Ala	Gln	Pro	Thr	Leu	Pro
				195	Ser
				200	Ala
Gln	Leu	Glu	Thr	Gly	Gly
210				215	Phe
				220	Thr
Ser	Lys	Leu	Arg	Asn	Ile
225				230	Ala
				235	Lys
Gln	Glu	Asn	Pro	Tyr	Thr
				245	Phe
				250	Ser
Leu	Lys	Gln	Arg	Ile	Ala
				260	Arg
				265	Phe
Ala	Ala	Asp	Ser	Arg	Ala
				275	Asn
				280	Phe
Ser	Arg	Lys	Ile	Gln	Asp
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<210> 4965

<211> 1474

<212> DNA

<213> Homo sapiens

<400> 4965

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<210> 4966

<211> 212

<212> PRT

<213> Homo sapiens

<400> 4966

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Leu	Ile	Leu	Lys	Trp	Glu	Thr	Leu	Asn	Asp	Ala	Gly	Phe	Thr	Thr	Ala
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		50				55					60				
Glu	Leu	Asp	Ser	Ser	Ser	Pro	Ala	Ser	Lys	Glu	Asn	Glu	Glu	Lys	Val
65					70				75					80	
Cys	Leu	Glu	Tyr	Asn	Glu	Glu	Leu	Glu	Lys	Leu	Cys	Glu	Glu	Leu	Gln
			85						90					95	
Ala	Thr	Leu	Asp	Gly	Leu	Thr	Lys	Ile	Gln	Val	Lys	Met	Glu	Lys	Leu
			100					105						110	
Ser	Ser	Thr	Thr	Lys	Gly	Ile	Cys	Glu	Leu	Glu	Asn	Tyr	His	Tyr	Gly
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Glu	Glu	Ser	Lys	Arg	Pro	Pro	Leu	Phe	His	Thr	Trp	Pro	Thr	Thr	His
			130				135				140				
Phe	Tyr	Glu	Val	Ser	His	Lys	Leu	Leu	Glu	Met	Tyr	Arg	Lys	Glu	Leu
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Leu	Leu	Lys	Arg	Thr	Val	Ala	Lys	Glu	Leu	Ala	His	Thr	Gly	Asp	Pro

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<212> DNA
<213> Homo sapiens

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<211> 51
<212> PRT
<213> Homo sapiens

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<210> 4969
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<211> 155

<212> PRT

<213> Homo sapiens

<400> 4970

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Val	Ala	Leu	Asn	Met	Val	Leu	Pro	Asp	Glu	Lys	Gly	Ala	Gly	Ala	Leu
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Pro	Phe	Leu	Pro	Gly	Val	Phe	Gly	Tyr	Ala	Val	Asn	Pro	Gln	Ala	Ala
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Pro	Leu	Gly	Ala	Pro	Ser	His	Ser	Cys	Ala	Gly	Thr	Trp	Gly	Pro	Leu
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4972

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<212> DNA

<213> Homo sapiens

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<210> 4978

<211> 792

<212> PRT

<213> Homo sapiens

<400> 4978

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			20					25						30	
Glu	Thr	Thr	Thr	Ser	Thr	Ile	Ile	Thr	Thr	Thr	Val	Ile	Thr	Thr	Glu
			35				40					45			
Gln	Ala	Pro	Ala	Leu	Cys	Ser	Val	Ser	Phe	Ser	Asn	Pro	Glu	Gly	Tyr
					55					60					
Ile	Asp	Ser	Ser	Asp	Tyr	Pro	Leu	Leu	Pro	Leu	Asn	Asn	Phe	Leu	Glu
65					70					75				80	
Cys	Thr	Tyr	Asn	Val	Thr	Val	Tyr	Thr	Gly	Tyr	Gly	Val	Glu	Leu	Gln
			85					90					95		
Val	Lys	Ser	Val	Asn	Leu	Ser	Asp	Gly	Glu	Leu	Leu	Ser	Ile	Arg	Gly
			100					105					110		
Val	Asp	Gly	Pro	Thr	Leu	Thr	Val	Leu	Ala	Asn	Gln	Thr	Leu	Leu	Val

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 Glu Gly Gln Val Ile Arg Ser Pro Thr Asn Thr Ile Ser Val Tyr Phe
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 Arg Thr Phe Gln Asp Asp Gly Leu Gly Thr Phe Gln Leu His Tyr Gln
 145 150 155 160
 Ala Phe Met Leu Ser Cys Asn Phe Pro Arg Arg Pro Asp Ser Gly Asp
 165 170 175
 Val Thr Val Met Asp Leu His Ser Gly Gly Val Ala His Phe His Cys
 180 185 190
 His Leu Gly Tyr Glu Leu Gln Gly Ala Lys Met Leu Thr Cys Ile Asn
 195 200 205
 Ala Ser Lys Pro His Trp Ser Ser Gln Glu Pro Ile Cys Ser Ala Pro
 210 215 220
 Cys Gly Gly Ala Val His Asn Ala Thr Ile Gly Arg Val Leu Ser Pro
 225 230 235 240
 Ser Tyr Pro Glu Asn Thr Asn Gly Ser Gln Phe Cys Ile Trp Thr Ile
 245 250 255
 Glu Ala Pro Glu Gly Gln Lys Leu His Leu His Phe Glu Arg Leu Leu
 260 265 270
 Leu His Asp Lys Asp Arg Met Thr Val His Ser Gly Gln Thr Asn Lys
 275 280 285
 Ser Ala Leu Leu Tyr Asp Ser Leu Gln Thr Glu Ser Val Pro Phe Glu
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 Gly Leu Leu Ser Glu Gly Asn Thr Ile Arg Ile Glu Phe Thr Ser Asp
 305 310 315 320
 Gln Ala Arg Ala Ala Ser Thr Phe Asn Ile Arg Phe Glu Ala Phe Glu
 325 330 335
 Lys Gly His Cys Tyr Glu Pro Tyr Ile Gln Asn Gly Asn Phe Thr Thr
 340 345 350
 Ser Asp Pro Thr Tyr Asn Ile Gly Thr Ile Val Glu Phe Thr Cys Asp
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 Pro Gly His Ser Leu Glu Gln Gly Pro Ala Ile Ile Glu Cys Ile Asn
 370 375 380
 Val Arg Asp Pro Tyr Trp Asn Asp Thr Glu Pro Leu Cys Arg Ala Met
 385 390 395 400
 Cys Gly Gly Glu Leu Ser Ala Val Ala Gly Val Val Leu Ser Pro Asn
 405 410 415
 Trp Pro Glu Pro Tyr Val Glu Gly Glu Asp Cys Ile Trp Lys Ile His
 420 425 430
 Val Gly Glu Glu Lys Arg Ile Phe Leu Asp Ile Gln Phe Leu Asn Leu
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 Ser Asn Ser Asp Ile Leu Thr Ile Tyr Asp Gly Asp Glu Val Met Pro
 450 455 460
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 465 470 475 480
 Ser Ser Thr Pro Asp Leu Thr Ile Gln Phe His Ser Asp Pro Ala Gly
 485 490 495
 Leu Ile Phe Gly Lys Gly Gln Gly Phe Ile Met Asn Tyr Ile Glu Val
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Ser Asp Pro Val Leu Leu Val Gly Thr Thr Ile Gln Tyr Thr Cys Asn
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Pro Gly Phe Val Leu Glu Gly Ser Ser Leu Leu Thr Cys Tyr Ser Arg
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Glu Thr Gly Thr Pro Ile Trp Thr Ser Arg Leu Pro His Cys Val Ser
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Glu Glu Ser Leu Ala Cys Asp Asn Pro Gly Leu Pro Glu Asn Gly Tyr
640 645 650 655
Gln Ile Leu Tyr Lys Arg Leu Tyr Leu Pro Gly Glu Ser Leu Thr Phe
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Met Cys Tyr Glu Gly Phe Glu Leu Met Gly Glu Val Thr Ile Arg Cys
675 680 685
Ile Leu Gly Gln Pro Ser His Trp Asn Gly Pro Leu Pro Val Cys Lys
690 695 700
Val Asn Gln Asp Ser Phe Glu His Ala Leu Glu Ala Glu Ala Ala
705 710 715
Glu Thr Ser Leu Glu Gly Gly Asn Met Ala Leu Ala Ile Phe Ile Pro
720 725 730 735
Val Leu Ile Ile Ser Leu Leu Leu Gly Gly Ala Tyr Ile Tyr Ile Thr
740 745 750
Arg Cys Arg Tyr Tyr Ser Asn Leu Arg Leu Pro Leu Met Tyr Ser His
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Pro Tyr Ser Gln Ile Thr Val Glu Thr Glu Phe Asp Asn Pro Ile Tyr
770 775 780
Glu Thr Gly Gly Thr Gln Lys Val
785 790

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<211> DNA
<212> Homo sapiens

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<210> 4980

<211> 266

<212> PRT

<213> Homo sapiens

<400> 4980

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 Leu Arg Thr Leu Gly Ser Ser Gly Ser Ser Thr Pro Glu Asn
 35 40 45
 Val Gly Pro Pro Phe Leu Met Asp Glu Asn Ser Trp Phe Asn Lys Cys
 50 55 60
 Lys Arg Val Lys Gln Lys Tyr Gln Leu Thr Leu Glu Gln Lys Gly Tyr
 65 70 75 80
 Leu Glu Glu Leu Leu Arg Leu Arg Glu Asn Gln Leu Ser Glu Ser Val
 85 90 95
 Ser Gln Asn Lys Ile Leu Leu Gln Arg Ile Glu Asp Ser Asp Leu Ala
 100 105 110
 His Lys Leu Glu Lys Glu Gln Leu Glu Tyr Ile Ile Val Glu Leu Gln
 115 120 125
 Asp Gln Leu Thr Val Leu Lys Asn Asn Asp Leu Arg Ser Arg Gln Glu
 130 135 140
 Leu Thr Ala His Leu Thr Asn Gln Trp Pro Ser Pro Gly Ala Leu Asp
 145 150 155 160
 Val Asn Ala Val Ala Leu Asp Thr Leu Leu Tyr Arg Lys His Asn Lys
 165 170 175
 Gln Trp Lys Ser Tyr Gln Ser Leu Asp Gln Leu Ser Ala Glu Val Ser
 180 185 190
 Leu Ser Gln Thr Ser Leu Asp Pro Gly Gln Ser Gln Glu Gly Asp Gly
 195 200 205
 Lys Gln Asp Thr Leu Asn Val Met Ser Glu Gly Lys Glu Asp Thr Pro
 210 215 220
 Ser Leu Leu Gly Leu Cys Gly Ser Leu Thr Ser Val Ala Ser Tyr Lys
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 Glu Met Thr Ser Pro Gly Leu Thr Pro Ser
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<210> 4981

<211> 1902

<212> DNA

<213> Homo sapiens

<400> 4981

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<210> 4982

<211> 73
 <212> PRT
 <213> Homo sapiens

<400> 4982
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 Gln Pro Pro Ser Pro Arg Phe Lys Arg Phe Ser Cys Leu Leu Ser
 35 40 45
 Ser Trp Asp Tyr Arg Cys Ser Pro Pro His Pro Ala Asn Phe Cys Ile
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 Phe Ser Arg Asp Gly Val Ser Pro Cys
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<210> 4983
 <211> 1418
 <212> DNA
 <213> Homo sapiens

<400> 4983
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 960

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<210> 4984

<211> 256

<212> PRT

<213> Homo sapiens

<400> 4984

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 Gly Ser Phe Leu Ala Arg Ala Lys Phe Ile Pro Leu Ile Thr Val Lys
 35 40 45
 Ser Cys Leu Asp Leu Leu Val Asn Trp Leu His Ile Tyr Leu Asn Asn
 50 55 60
 Gln Asp Ser Gly Thr Lys Ala Phe Cys Asp Val Ala Leu His Gly Pro
 65 70 75 80
 Phe Tyr Ser Ala Cys Gln Ala Val Phe Tyr Thr Phe Val Phe Arg His
 85 90 95
 Lys Gln Leu Leu Ser Gly Asn Leu Lys Glu Gly Leu Gln Tyr Leu Gln
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 Ser Leu Asn Phe Glu Arg Ile Val Met Ser Gln Leu Asn Pro Leu Lys
 115 120 125
 Ile Cys Leu Pro Ser Val Val Asn Phe Phe Ala Ala Ile Thr Asn Lys
 130 135 140
 Tyr Gln Leu Val Phe Cys Tyr Thr Ile Ile Glu Arg Asn Asn Arg Gln
 145 150 155 160
 Met Leu Pro Val Ile Arg Ser Thr Ala Gly Gly Asp Ser Val Gln Thr
 165 170 175
 Cys Thr Asn Pro Leu Asp Thr Phe Phe Pro Phe Asp Pro Cys Val Leu
 180 185 190
 Lys Arg Ser Lys Lys Phe Ile Asp Pro Ile Tyr Gln Val Trp Glu Asp
 195 200 205
 Met Ser Ala Glu Glu Leu Gln Glu Phe Lys Lys Pro Met Lys Lys Asp
 210 215 220
 Ile Val Glu Asp Glu Asp Asp Phe Leu Lys Gly Glu Ile Pro Gln
 225 230 235 240
 Lys Leu Val Val Ser Gly Val Phe Val Gly Trp Glu Val Val Leu Met

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250

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<210> 4985
 <211> 5695
 <212> DNA
 <213> Homo sapiens

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<211> 1239

<212> PRT

<213> Homo sapiens

<400> 4986

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580          585          590
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<211> 105

<212> PRT

<213> Homo sapiens

<400> 4988

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			20					25					30	
Phe	Pro	Leu	Cys	Phe	Leu	Gly	Thr	Ala	Phe	Pro	Gln	Gly	Glu	Gln
			35				40					45		
Pro	Leu	Glu	Ala	Lys	Gly	Leu	Ala	Thr	Gln	Gly	Ala	Ser	Leu	Pro
			50			55					60			
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					70					75			80	
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Glu	Gln	Ala	Ser	Phe	Leu	Ala	Ser	Ser	Phe	Ser	Ser	Ser	Ala	Gly	Pro
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 <212> PRT
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<210> 4993
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<212> PRT

<213> Homo sapiens

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Trp	Asp	Ser	Glu	Leu	Lys	Ala	Asp	Gln	Gly	Asn	Pro	Tyr	Asp	Ala	Asp
65			70				75					80			
Asp	Ile	Gln	Glu	Ser	Ile	Ser	Gln	Glu	Leu	Lys	Pro	Trp	Val	Cys	Cys
		85				90						95			
Ala	Pro	Gln	Gly	Asp	Met	Ile	Tyr	Asp	Pro	Ser	Trp	His	His	Pro	Pro
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Pro	Leu	Ile	Pro	Tyr	Tyr	Ser	Lys	Met	Val	Phe	Glu	Thr	Gly	Gln	Phe
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<210> 4995

<211> 1595

<212> DNA

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<211> 217

<212> PRT

<213> Homo sapiens

<400> 4996

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<210> 4997

<211> 1888

<212> DNA

<213> Homo sapiens

<400> 4997

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<210> 4998
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 Pro Ser Ser Leu Gln Lys Leu Phe Arg Glu Val Arg Ile Met Lys Gly
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 Ile Lys Ile Ala Asp Phe Gly Phe Ser Asn Glu Phe Thr Leu Gly Ser
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<211> 1630

<212> DNA

<213> Homo sapiens

<400> 4999

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<210> 5000

<211> 307

<212> PRT

<213> Homo sapiens

<400> 5000

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<211> 335

<212> PRT

<213> Homo sapiens

<400> 5002

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Phe Lys Pro Arg Leu Gly Met Thr Lys Glu Glu Met Met Ile Phe Ile
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<211> 3729

<212> DNA

<213> Homo sapiens

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<210> 5004

<211> 642
 <212> PRT
 <213> Homo sapiens

<400> 5004

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Leu Gln Arg Ser Leu Asn Glu Leu Asp Gly Leu Lys Ile Pro Ser Glu
50          55          60
Ser Gly Glu Lys Leu Lys Val Val Asn Glu Arg Ala Thr Leu Phe Arg
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Ile Thr Ser Asn Ala Met Ile Asn Ala Cys Arg Asp Phe Leu Glu Leu
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Ala Glu Ile His Ser Arg Lys Trp Gln Arg Ala Leu Gln Tyr Glu Gln
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Glu Gln Arg Val His Leu Glu Glu Thr Ile Glu Gln Leu Ala Lys Gln
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His Asn Ser Leu Glu Arg Ala Phe His Ser Ala Pro Gly Arg Pro Ala
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Arg Lys Ala Glu Gly Ser Thr Gly Thr Ser Ser Val Asp Trp Ser Ser
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225         230         235         240
Asn Leu Trp Ser Ile Met Lys Asn Cys Ile Gly Arg Glu Leu Ser Arg
245         250         255
Ile Pro Met Pro Val Asn Phe Asn Glu Pro Leu Ser Met Leu Gln Arg
260         265         270
Leu Thr Glu Asp Leu Glu Tyr His His Leu Leu Asp Lys Ala Val His
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Cys Thr Ser Ser Val Glu Gln Met Cys Leu Val Ala Ala Phe Ser Val
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Arg Ser Leu Cys Glu Gln Val Ser His His Pro Pro Ser Ala Ala His
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Tyr Val Phe Ser Lys His Gly Trp Ser Leu Trp Gln Glu Ile Thr Ile
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Lys Val Thr Gly Val Val Ser Asp Ser Gln Gly Lys Ala His Tyr Val
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Leu Ser Gly Ser Trp Asp Glu Gln Met Glu Cys Ser Lys Val Met His
465          470          475          480
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Gln Thr Leu Ser Ala Lys Leu Leu Trp Lys Lys Tyr Pro Leu Pro Glu
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Asn Ala Glu Asn Met Tyr Tyr Phe Ser Glu Leu Ala Leu Thr Leu Asn
          515          520          525
Glu His Glu Glu Gly Val Ala Pro Thr Asp Ser Arg Leu Arg Pro Asp
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Gln Arg Leu Met Glu Lys Gly Arg Trp Asp Glu Ala Asn Thr Glu Lys
545          550          555          560
Gln Arg Leu Glu Glu Lys Gln Arg Leu Ser Arg Arg Arg Arg Leu Glu
          565          570          575
Ala Cys Gly Pro Gly Ser Ser Cys Ser Ser Glu Glu Gly Glu Ala Gly
          580          585          590
Arg Glu Gly Arg Pro Gly Gly Glu Glu Arg Gly Ala Arg Val Gly Val
          595          600          605
Pro Gln Gly Arg Ile Pro Gly Glu Gln Ala Thr Ser Pro Pro Thr Ser
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Pro Leu Cys Leu Pro Ser Arg Glu Gly Gly Gly Cys Leu His Ala Thr
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<210> 5005

<211> 1120

<212> DNA

<213> Homo sapiens

<400> 5005

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420

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<211> 165

<212> PRT

<213> Homo sapiens

<400> 5006

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 Arg Gly Ser Gly His Val Thr Val Phe Gly Leu Ser Asn Lys Phe Glu
 35 40 45
 Ser Glu Phe Pro Ser Ser Leu Thr Gly Lys Val Ala Pro Glu Glu Phe
 50 55 60
 Lys Ala Ser Ile Asn Arg Val Asn Ser Cys Leu Lys Lys Asn Leu Pro
 65 70 75 80
 Val Asn Val Arg Trp Leu Leu Cys Gly Cys Leu Cys Cys Cys Cys Thr
 85 90 95
 Leu Gly Cys Ser Met Trp Pro Val Ile Cys Leu Ser Lys Arg Thr Arg
 100 105 110
 Arg Ser Ile Glu Lys Leu Leu Glu Trp Glu Asn Asn Arg Leu Tyr His
 115 120 125
 Lys Leu Cys Leu His Trp Arg Leu Ser Lys Arg Lys Cys Glu Thr Asn
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<210> 5007

<211> 2165

<212> DNA

<213> Homo sapiens

<400> 5007

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<211> 487

<212> PRT

<213> Homo sapiens

<400> 5008

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 Met Cys Tyr Ile His Ile Ala Ala Leu Ile Ala Glu Tyr Leu Lys Arg
 50 55 60
 Lys Gly Met Phe Ser Met Gly Trp Pro Ala Val Leu Ser Ile Thr Pro
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 Thr Pro Tyr Asn Glu Asn Ile Leu Val Glu Gln Leu Tyr Met Cys Val
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 Glu Phe Leu Trp Lys Ser Glu Arg Tyr Glu Xaa Ser Leu Leu Met Ser
 115 120 125
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 Val Val Asn Ser Glu Ala Ala Val Trp Ser Leu Leu Ser Cys Gly Ile

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 195 200 205
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 Asp Ser Asn Lys Val Asn Pro Lys Asp Leu Asp Pro Lys Tyr Ala Tyr
 225 230 235 240
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 245 250 255
 Asp Arg Lys Thr Asp Phe Glu Met His His Asn Ile Asn Arg Phe Val
 260 265 270
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 275 280 285
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 385 390 395 400
 Ala Cys Gly Gln Ala Leu Asp Val Asn Glu Arg Leu Ile Lys Glu Asp
 405 410 415
 Gln Leu Glu Tyr Gln Glu Glu Leu Arg Ser His Tyr Lys Asp Met Leu
 420 425 430
 Ser Glu Leu Ser Thr Val Met Asn Glu Gln Leu Cys Arg Gly Pro Cys
 435 440 445
 Leu Tyr Ser Phe Cys Ser Ser Val Ser Ser Ile Ser Leu Ser Thr Val
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<210> 5009

<211> 426

<212> DNA

<213> Homo sapiens

<400> 5009

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<210> 5010

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<212> PRT

<213> Homo sapiens

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		20						25					30		
Asn	Leu	Pro	Gly	Arg	Val	His	Gln	Phe	Phe	Ile	Ser	Pro	Leu	Phe	Ile
		35					40					45			
Leu	Ser	Phe	Glu	Val	Ile	Leu	Ile	His	Phe	Leu	His	Leu	Gln	Pro	Pro
	50					55					60				
Val	Leu	Leu	Asp	Leu	Ala	Pro	Asn	Leu	Leu	Leu	Pro	Phe	Gly	Thr	Glu
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Glu	Lys	Leu	Leu	Ser	Ser	Pro	Cys	Phe	Ala	Asp	Ile	Ser	Lys	Gly	Lys
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Glu	Ser	Thr	Gly	Pro	Phe	Ile	Ser	Cys	Pro	Arg	Pro	Ser	Gln	Gly	Ala
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<212> DNA

<213> Homo sapiens

<400> 5011

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<210> 5012

<211> 950

<212> PRT

<213> Homo sapiens

<400> 5012

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Lys Ile Pro Val Asp Ala Ser Lys Pro Asn Pro Asn Asp Val Glu Phe
 35          40          45
Asp Asn Leu Tyr Leu Asp Met Asn Gly Ile Ile His Pro Cys Thr His
 50          55          60
Pro Glu Asp Lys Pro Ala Pro Lys Asn Glu Asp Glu Met Met Val Ala
 65          70          75          80
Ile Phe Glu Tyr Ile Asp Arg Leu Phe Ser Ile Val Arg Pro Arg Arg
 85          90          95
Leu Leu Tyr Met Ala Ile Asp Gly Val Ala Pro Arg Val Lys Met Asn
100          105          110
Gln Gln Arg Ser Arg Arg Phe Arg Ala Ile Lys Glu Gly Met Glu Ala
115          120          125
Ala Val Glu Lys Gln Arg Val Arg Glu Glu Ile Leu Ala Lys Gly Gly
130          135          140
Phe Leu Pro Pro Glu Glu Ile Lys Glu Arg Phe Asp Ser Asn Cys Ile
145          150          155          160
Thr Pro Gly Thr Glu Phe Met Asp Asn Leu Ala Lys Cys Leu Arg Tyr
165          170          175
Tyr Ile Ala Asp Arg Leu Asn Asn Asp Pro Gly Trp Lys Asn Leu Thr
180          185          190
Val Ile Leu Ser Asp Ala Ser Ala Pro Gly Glu Gly Glu His Lys Ile
195          200          205
Met Asp Tyr Ile Arg Arg Gln Arg Ala Gln Pro Asn His Asp Pro Asn
210          215          220
Thr His His Cys Leu Cys Gly Ala Asp Ala Asp Leu Ile Met Leu Gly
225          230          235          240
Leu Ala Thr His Glu Pro Asn Phe Thr Ile Arg Glu Glu Phe Lys
245          250          255
Pro Asn Lys Pro Lys Pro Cys Gly Leu Cys Asn Gln Phe Gly His Glu
260          265          270
Val Lys Asp Cys Glu Gly Leu Pro Arg Glu Lys Lys Gly Lys His Asp
275          280          285
Glu Leu Ala Asp Ser Leu Pro Cys Ala Glu Gly Glu Phe Ile Phe Leu
290          295          300
Arg Leu Asn Val Leu Arg Glu Tyr Leu Glu Arg Glu Leu Thr Met Ala
305          310          315          320
Ser Leu Pro Phe Thr Phe Asp Val Glu Arg Ser Ile Asp Asp Trp Val
325          330          335
Phe Met Cys Phe Phe Val Gly Asn Asp Phe Leu Pro His Leu Pro Ser
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Leu Glu Ile Arg Glu Asn Ala Ile Asp Arg Leu Val Asn Ile Tyr Lys
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Asn Val Val His Lys Thr Gly Gly Tyr Leu Thr Glu Ser Gly Tyr Val
370          375          380
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 Glu Ala Gly Trp Lys Gln Arg Tyr Tyr Lys Asn Lys Phe Asp Val Asp
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 Thr Glu Pro Val Glu Val Pro Pro Glu Leu Cys His Gly Ile Gln Gly
 705 710 715 720
 Lys Phe Ser Leu Asp Glu Glu Ala Ile Leu Pro Asp Gln Ile Val Cys
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 Ser Pro Val Pro Met Leu Arg Asp Leu Thr Gln Asn Thr Val Val Ser
 740 745 750
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 Val Met Leu Pro Gly Ala Arg Lys Pro Ala Ala Val Leu Lys Pro Ser
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 785 790 795 800
 Phe Asn Arg Asp Arg Arg Pro Val His Leu Asp Gln Ala Ala Phe Arg
 805 810 815
 Thr Leu Gly His Val Met Pro Arg Gly Ser Gly Thr Gly Ile Tyr Ser
 820 825 830
 Asn Ala Ala Pro Pro Pro Val Thr Tyr Gln Gly Asn Leu Tyr Arg Pro
 835 840 845
 Leu Leu Arg Gly Gln Ala Gln Ile Pro Lys Leu Met Ser Asn Met Arg

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Phe  Asp Arg  Gly  Val Gly  Ala Glu  Pro  Leu Leu  Pro  Trp Asn  Arg Met
      885                      890                      895
Leu  Gln Thr  Gln Asn Ala  Ala Phe  Gln Pro  Asn Gln  Tyr  Gln Met Leu
      900                      905                      910
Ala  Gly Pro  Gly  Gly Tyr  Pro  Pro Arg  Arg Asp  Asp  Arg Gly  Gly Arg
      915                      920                      925
Gln  Gly Tyr  Pro  Arg Glu  Gly Arg  Lys Tyr  Pro  Leu Pro  Pro  Pro Ser
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<210> 5013

<211> 2480

<212> DNA

<213> Homo sapiens

<400> 5013

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<210> 5014

<211> 675

<212> PRT

<213> Homo sapiens

<400> 5014

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Asp Pro Glu Cys Glu Ile Glu Arg Pro Glu Arg Leu Thr Ala Ala Leu
 35              40              45
Asp Arg Leu Arg Gln Arg Gly Leu Glu Gln Arg Cys Leu Arg Leu Ser
 50              55              60
Ala Arg Glu Ala Ser Glu Glu Glu Leu Gly Leu Val His Ser Pro Glu
 65              70              75              80
Tyr Val Ser Leu Val Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu
 85              90              95
Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr
 100             105             110
Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp
 115             120             125
Ala Val Leu Thr Gly Ala Val Gln Asn Gly Leu Ala Leu Val Arg Pro
 130             135             140
Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe
 145             150             155             160
Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu
 165             170             175
His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile
 180             185             190
Gln Tyr Leu Phe Glu Asp Asp Pro Ser Val Leu Tyr Phe Ser Trp His
 195             200             205
Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala
 210             215             220
Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro
 225             230             235             240
Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu
 245             250             255
His Leu Leu Leu Pro Leu Ala Phe Glu Phe Asp Pro Glu Leu Val Leu
 260             265             270
Val Ser Ala Gly Phe Asp Ser Ala Ile Gly Asp Pro Glu Gly Gln Met
 275             280             285
Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val
 290             295             300
Leu Ala Gly Gly Arg Val Cys Ala Val Leu Glu Gly Gly Tyr His Leu
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Glu Ser Leu Ala Glu Ser Val Cys Met Thr Val Gln Thr Leu Leu Gly
 325             330             335
Asp Pro Ala Pro Pro Leu Ser Gly Pro Met Ala Pro Cys Gln Arg Cys
 340             345             350
Glu Gly Ser Ala Leu Glu Ser Ile Gln Ser Ala Arg Ala Ala Gln Ala
 355             360             365
Pro His Trp Lys Ser Leu Gln Gln Gln Asp Val Thr Ala Val Pro Met
 370             375             380
Ser Pro Ser Ser His Ser Pro Glu Gly Arg Pro Pro Pro Leu Leu Pro
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 Gly Gln Leu Asp Arg Pro Pro Asp Leu Ala His Asp Gly Arg Ser Leu
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 Val Ser Thr Pro Leu Pro Val Met Thr Gly Gly Phe Leu Ser Cys Ile
 565 570 575
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 610 615 620
 Leu Leu Glu Glu Val Ser Trp Ala Gly Trp Arg Cys Gly Val Gly
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 Gly Thr Ser
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<210> 5015

<211> 1360

<212> DNA

<213> Homo sapiens

<400> 5015

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<211> 284

<212> PRT

<213> Homo sapiens

<400> 5016

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Ala	Ala	Ile	Phe	Val	Gly	Gly	Ser	Gln	Ala	Trp	Leu	Glu	Met	Pro	Lys
		35					40					45			
Ser	Cys	Ala	Ala	Arg	Gln	Cys	Cys	Asn	Arg	Tyr	Ser	Ser	Arg	Arg	Lys
	50				55					60					
Gln	Leu	Thr	Phe	His	Arg	Phe	Pro	Phe	Ser	Arg	Pro	Glu	Leu	Leu	Lys
65				70					75					80	
Glu	Trp	Val	Leu	Asn	Ile	Gly	Arg	Gly	Asn	Phe	Lys	Pro	Lys	Gln	His
				85					90					95	
Thr	Val	Ile	Cys	Ser	Glu	His	Phe	Arg	Pro	Glu	Cys	Phe	Ser	Ala	Phe

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 <212> PRT
 <213> Homo sapiens

<400> 5018
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 <211> 2766
 <212> DNA
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<210> 5020
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 <213> Homo sapiens

<400> 5020
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 Lys Gly Val Leu Arg Val Gly Val Phe Ala Lys Gly Leu Leu Leu Arg
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 Phe Ile Ser Pro Glu Lys Tyr Asp Ile Lys Cys Ala Val Ser Glu Ala
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 Val Thr Ser Gly Met Val Lys Asp Pro Pro Asp Val Leu Asp Arg Gln
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Gln Ser Pro Gly Asp Ala Leu Arg Arg Val Phe Glu Cys Ile Ser Ser
      325              330              335
Gly Ile Ile Leu Lys Gly Ser Pro Gly Leu Leu Asp Pro Cys Glu Lys
      340              345              350
Asp Pro Phe Asp Thr Leu Ala Thr Met Thr Asp Gln Gln Arg Glu Asp
      355              360              365
Ile Thr Ser Ser Ala Gln Phe Ala Leu Arg Leu Leu Ala Phe Arg Gln
      370              375              380
Ile His Lys Val Leu Gly Met Asp Pro Leu Pro Gln Met Ser Gln Arg
      385              390              395              400
Phe Asn Ile His Asn Asn Arg Lys Arg Arg Asp Ser Asp Gly Val
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<210> 5021

<211> 494

<212> DNA

<213> Homo sapiens

<400> 5021

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<211> 124

<212> PRT

<213> Homo sapiens

<400> 5022

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Gly Asn Ser Ser Cys Tyr Gly Val Leu Pro Thr Glu Glu Pro Val Tyr
      50           55           60
Asn Trp Arg Thr Val Ile Asn Ser Ala Ala Asp Phe Tyr Phe Glu Gly
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Asn Ile His Gln Ser Leu Gln Asn Ile Thr Glu Asn Gln Leu Val Gln
      85           90           95
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<211> 3482

<212> DNA

<213> Homo sapiens

<400> 5023

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<211> 323

<212> PRT

<213> Homo sapiens

<400> 5024

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 Leu Arg Arg Arg Met Leu Ala Ala Arg Asn Gly Gly Phe Arg Ser
 50 55 60
 Ser Arg Pro Pro Ser Ala Pro Leu Pro Ser Ser Ala Ala Ser Cys Ala
 65 70 75 80
 Leu Cys Pro Thr Asp Trp Arg Arg Pro Val Pro Ile Leu Pro Leu His
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 Gly Lys Ala Gly Leu Thr Ala Leu Pro Leu Tyr Lys Ala Cys Gly Leu
 100 105 110
 Ile Val Phe Gly Gln Leu Ile Asn Leu Ile Leu Leu Cys Asn Thr Phe

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Pro	Ala	Ser	Cys	Ile	Arg	Pro
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195			200		205	
Arg	Arg	Gly	Val	Thr	Ser	Val
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His	Val	Asp	Cys	Ala	Arg	Ala
225			230		235	
Gln	Gln	Gly	Ile	Leu	Glu	Lys
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Arg	Arg	Gly	Lys	Ser	Arg	Ala
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Cys	Pro	Thr	Thr	Ser	Gly	Thr
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<210> 5025

<211> 2596

<212> DNA

<213> Homo sapiens

<400> 5025

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<211> 136

<212> PRT

<213> Homo sapiens

<400> 5026

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			20				25						30		
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		35					40					45			
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		50				55					60				
Tyr	Lys	Asp	Ala	Phe	Met	Lys	Ala	Asn	Pro	Gly	Tyr	Lys	Trp	Cys	Pro
				70					75					80	
Thr	Thr	Asn	Lys	Pro	Val	Lys	Ser	Pro	His	Pro	Leu	Ser	Ile	His	Glu
			85						90					95	
Arg	Asn	Phe	Gly	Pro	Ser	His	Leu	Thr	Leu	Gln	Glu	Thr	Cys	Gln	Ala
			100					105					110		
Pro	Arg	Lys	Gln	Arg	Leu	Lys	Lys	Cys	Leu	Ser	Leu	Thr	Leu	Glu	Trp
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<211> 359

<212> DNA

<213> Homo sapiens

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<210> 5028

<211> 68

<212> PRT

<213> Homo sapiens

<400> 5028

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Gln	Gly	Gln	Gln	Gln	Arg	Ala	Gln	Arg	Gly	His	Gly	Gly	Ser	Ala	Gly
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Lys	Thr	His	Lys	Phe	Ser	Ala	Gly	Thr	Tyr	Pro	Arg	Leu	Glu	Glu	Tyr
		35					40				45				
Arg	Arg	Gly	Ile	Leu	Gly	Asp	Trp	Ser	Asn	Ala	Ile	Ser	Ala	Leu	Tyr
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Cys	Arg	Cys	Ser												
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<210> 5029

<211> 1440

<212> DNA

<213> Homo sapiens

<400> 5029

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<210> 5030

<211> 188

<212> PRT

<213> Homo sapiens

<400> 5030

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			20				25						30		
Val	Ile	Leu	Ile	Phe	Cys	Leu	Met	Thr	Leu	Ile	Gly	Asn	Leu	Phe	Ile
			35				40					45			
Ile	Ile	Leu	Thr	Tyr	Leu	Asp	Ser	His	Leu	His	Thr	Pro	Leu	Tyr	Phe
			50				55				60				
Phe	Leu	Ser	Asn	Leu	Ser	Phe	Leu	Asp	Leu	Cys	Tyr	Thr	Thr	Ser	Ser
65				70					75					80	
Ile	Pro	Gln	Leu	Leu	Val	Ser	Leu	Trp	Gly	Val	Glu	Lys	Thr	Ile	Ser
				85					90					95	
Tyr	Ala	Gly	Cys	Met	Val	Gln	Leu	Tyr	Phe	Phe	Leu	Thr	Leu	Gly	Thr
				100				105					110		
Thr	Glu	Cys	Val	Leu	Leu	Val	Val	Met	Ser	Tyr	Asp	Arg	Tyr	Ala	Ala
			115				120					125			
Val	Cys	Arg	Pro	Leu	His	Tyr	Thr	Val	Leu	Met	His	Ser	Arg	Phe	Cys
			130				135					140			
His	Leu	Leu	Ala	Val	Ala	Ser	Trp	Val	Ser	Gly	Phe	Thr	Asn	Pro	Ala
145				150						155				160	
Leu	His	Ser	Ser	Phe	Thr	Phe	Trp	Val	Pro	Leu	Cys	Gly	His	Arg	Gln
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Ile	Asp	His	Phe	Phe	Cys	Glu	Val	Pro	Ala	Leu	Leu				
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<210> 5031
 <211> 505
 <212> DNA
 <213> Homo sapiens

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<210> 5032
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 5032
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 Lys Arg Arg Ala Val Asp Trp His Ala Leu Glu Arg Pro Lys Gly Cys
 35 40 45
 Met Gly Val Leu Ala Arg Glu Ala Pro His Leu Glu Lys Gln Pro Ala
 50 55 60
 Ala Gly Pro Gln Arg Val Leu Pro Gly Glu Arg Glu Glu Arg Pro Pro
 65 70 75 80
 Thr Leu Ser Ala Ser Phe Arg Thr Met Ala Glu Phe Met Asp Tyr Thr
 85 90 95
 Ser Ser Gln Cys Gly Lys Tyr Tyr Ser Ser Val Pro Glu Glu Gly Gly
 100 105 110
 Ala Thr His Val Tyr Arg Tyr His Arg Gly Glu Ser Lys Leu His Met
 115 120 125
 Cys Leu Asp Ile Gly Asn Gly Gln Arg Lys Asp Arg Lys Lys Thr Ser
 130 135 140
 Leu Gly Pro Gly Gly Ser Tyr Gln Ile Ser Glu His Ala Pro
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<210> 5033
 <211> 2888

<212> DNA

<213> Homo sapiens

<400> 5033

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 2760
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<210> 5034

<211> 550

<212> PRT

<213> Homo sapiens

<400> 5034

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 35 40 45
 Cys Val Glu Val Thr Gly Lys Phe Arg Gly Gly Val Asn Pro Phe Thr
 50 55 60
 Arg Gly Cys Cys Gly Asn Val Glu His Val Leu Cys Ser Pro Leu Ala
 65 70 75 80
 Pro Arg Tyr Val Val Glu Pro Pro Arg Leu Pro Leu Ala Val Ser Leu
 85 90 95
 Lys Pro Pro Phe Leu Arg Pro Glu Leu Leu Asp Arg Ala Ala Pro Leu
 100 105 110
 Lys Val Lys Leu Ser Asp Asn Gly Leu Lys Ala Gly Leu Gly Arg Ser
 115 120 125
 Lys Ser Lys Gly Ser Leu Asp Arg Leu Asp Glu Lys Pro Leu Asp Leu
 130 135 140
 Gly Pro Pro Leu Pro Pro Lys Ile Glu Ala Gly Thr Phe Ser Ser Asp
 145 150 155 160
 Leu Gln Thr Pro Arg Pro Gly Ser Ala Glu Ser Ala Leu Ser Val Gln
 165 170 175
 Arg Thr Ser Pro Pro Thr Pro Ala Met Tyr Lys Phe Arg Pro Ala Phe
 180 185 190
 Pro Thr Gly Pro Lys Val Pro Phe Cys Gly Pro Gly Glu Gln Val Pro
 195 200 205
 Gly Pro Asp Ser Leu Thr Leu Gly Asp Asp Asn Ile Arg Ser Leu Asp
 210 215 220
 Phe Val Ser Glu Pro Ser Leu Asp Leu Pro Asp Tyr Gly Pro Gly Gly
 225 230 235 240
 Leu His Ala Ala Tyr Pro Pro Ser Pro Pro Leu Ser Ala Ser Asp Ala
 245 250 255
 Phe Ser Gly Ala Leu Arg Ser Leu Ser Leu Lys Ala Ser Ser Arg Arg
 260 265 270
 Gly Gly Asp His Val Ala Leu Gln Pro Leu Arg Ser Glu Gly Gly Pro
 275 280 285
 Pro Thr Pro His Arg Ser Ile Phe Ala Pro His Ala Leu Pro Asn Arg
 290 295 300
 Asn Gly Ser Leu Ser Tyr Asp Ser Leu Leu Asn Pro Gly Ser Pro Gly
 305 310 315 320
 Gly His Ala Cys Pro Ala His Pro Ala Val Gly Val Ala Gly Tyr His
 325 330 335
 Ser Pro Tyr Leu His Pro Gly Ala Thr Gly Asp Pro Pro Arg Pro Leu
 340 345 350
 Pro Arg Ser Phe Ser Pro Val Leu Gly Pro Arg Pro Arg Glu Pro Ser
 355 360 365
 Pro Val Arg Tyr Asp Asn Leu Ser Arg Thr Ile Met Ala Ser Ile Gln
 370 375 380
 Glu Arg Lys Asp Arg Glu Glu Arg Glu Arg Leu Leu Arg Ser Gln Ala
 385 390 395 400
 Asp Ser Leu Phe Gly Asp Ser Gly Val Tyr Asp Ala Pro Ser Ser Tyr
 405 410 415
 Ser Leu Gln Gln Ala Ser Val Leu Ser Glu Gly Pro Arg Gly Pro Ala

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Leu Arg Tyr Gly Ser Arg Asp Asp Leu Val Ala Gly Pro Gly Phe Gly
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Gly Ala Arg Asn Pro Ala Leu Gln Thr Ser Leu Ser Ser Leu Ser Ser
          450          455          460
Ser Val Ser Arg Ala Pro Arg Thr Ser Ser Ser Ser Leu Gln Ala Asp
          465          470          475          480
Gln Ala Ser Ser Asn Ala Pro Gly Ala Pro Ala Gln Gln Trp Leu Thr
          485          490          495
Gln Val Thr Cys Thr Pro Gly Pro Ala Leu Pro Ala Arg His Ser Pro
          500          505          510
Leu Thr Ile Leu Arg Gly Pro Gln Ser Cys Arg Leu His Pro His Gly
          515          520          525
Pro Pro Arg Ala Thr Ala Leu Ala Asp Arg Ala Glu Gly Pro Pro Ser
          530          535          540
Ala Glu Asp Ser Pro Lys
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<210> 5035

<211> 2002

<212> DNA

<213> Homo sapiens

<400> 5035

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180
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780
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840
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900

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<210> 5036

<211> 384

<212> PRT

<213> Homo sapiens

<400> 5036

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 20 25 30
 Phe Gly Gln Ala Glu Lys Thr Glu Leu Asp Ala His Phe Glu Asn Leu
 35 40 45
 Leu Ala Arg Ala Asp Ser Thr Lys Asn Trp Thr Glu Lys Ile Leu Arg
 50 55 60
 Gln Thr Glu Val Leu Leu Gln Pro Asn Pro Ser Ala Arg Val Glu Glu

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65          70          75          80
Phe Leu Tyr Glu Lys Leu Asp Arg Lys Val Pro Ser Arg Val Thr Asn
      85          90          95
Gly Glu Leu Leu Ala Gln Tyr Met Ala Asp Ala Ala Ser Glu Leu Gly
      100          105          110
Pro Thr Thr Pro Tyr Gly Lys Thr Leu Ile Lys Val Ala Glu Ala Glu
      115          120          125
Lys Gln Leu Gly Ala Ala Glu Arg Asp Phe Ile His Thr Ala Ser Ile
      130          135          140
Ser Phe Leu Thr Pro Leu Arg Asn Phe Leu Glu Gly Asp Trp Lys Thr
145          150          155          160
Ile Ser Lys Glu Ser Arg Leu Leu Gln Asn Arg Arg Leu Asp Leu Asp
      165          170          175
Ala Cys Lys Ala Arg Leu Lys Lys Ala Lys Ala Ala Glu Ala Lys Ala
      180          185          190
Thr Leu Trp Asn Asp Glu Val Asp Lys Ala Glu Gln Glu Leu Arg Val
      195          200          205
Ala Gln Thr Glu Phe Asp Arg Gln Ala Glu Val Thr Arg Leu Leu Leu
      210          215          220
Glu Gly Ile Ser Ser Thr His Val Asn His Leu Arg Cys Leu His Glu
225          230          235          240
Phe Val Lys Ser Gln Thr Thr Tyr Tyr Ala Gln Cys Tyr Arg His Met
      245          250          255
Leu Asp Leu Gln Lys Gln Leu Gly Ser Ser Gln Gly Ala Ile Ser Arg
      260          265          270
His Leu Arg Gly His His Arg Ala Arg Leu Pro Pro Leu Ser Ser Thr
      275          280          285
Ser Pro Thr Thr Ala Ala Ala Thr Met Pro Val Val Pro Ser Val Ala
      290          295          300
Ser Leu Ala Pro Pro Gly Glu Ala Ser Leu Cys Leu Glu Glu Val Ala
305          310          315          320
Pro Pro Ala Ser Gly Thr Arg Lys Ala Arg Val Leu Tyr Asp Tyr Glu
      325          330          335
Ala Ala Asp Ser Ser Glu Leu Ala Leu Leu Ala Asp Glu Leu Ile Thr
      340          345          350
Val Tyr Ser Leu Pro Gly Met Asp Pro Asp Trp Leu Ile Gly Glu Arg
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Gly Asn Lys Lys Gly Lys Val Pro Val Thr Tyr Leu Glu Leu Leu Ser
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<210> 5037

<211> 2102

<212> DNA

<213> Homo sapiens

<400> 5037

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120
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180
cgccctgccc cgccccgctt cctccctctc gtgcgtcctc aagcatttgc tgttgttttc
240

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 2100
 ca
 2102

<210> 5038

<211> 533

<212> PRT

<213> Homo sapiens

<400> 5038

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 Ile Cys Lys Gln Ser Met Ser Val Ser Lys Glu Tyr Asn Leu Arg Arg
 35 40 45
 His Tyr Gln Thr Asn His Ser Lys His Tyr Asp Gln Tyr Thr Glu Arg
 50 55 60
 Met Arg Asp Glu Lys Leu His Glu Leu Lys Lys Gly Leu Arg Lys Tyr
 65 70 75 80
 Leu Leu Gly Ser Ser Asp Thr Glu Cys Pro Glu Gln Lys Gln Val Phe
 85 90 95
 Ala Asn Pro Ser Pro Thr Gln Lys Ser Pro Val Gln Pro Val Glu Asp
 100 105 110
 Leu Ala Gly Asn Leu Trp Glu Lys Leu Arg Glu Lys Ile Arg Ser Phe
 115 120 125
 Val Ala Tyr Ser Ile Ala Ile Asp Glu Ile Thr Asp Ile Asn Asn Thr
 130 135 140
 Thr Gln Leu Ala Ile Phe Ile Arg Gly Val Asp Glu Asn Phe Asp Val
 145 150 155 160
 Ser Glu Glu Leu Leu Asp Thr Val Pro Met Thr Gly Thr Lys Ser Gly
 165 170 175
 Asn Glu Ile Phe Ser Arg Val Glu Lys Ser Leu Lys Lys Phe Cys Ile
 180 185 190
 Asp Trp Ser Lys Leu Val Ser Val Ala Ser Thr Gly Thr Pro Ala Met
 195 200 205
 Val Asp Ala Asn Asn Gly Leu Val Thr Lys Leu Lys Ser Arg Val Ala
 210 215 220
 Thr Phe Cys Lys Gly Ala Glu Leu Lys Ser Ile Cys Cys Ile Ile His
 225 230 235 240
 Pro Glu Ser Leu Cys Ala Gln Lys Leu Lys Met Asp His Val Met Asp
 245 250 255
 Val Val Val Lys Ser Val Asn Trp Ile Cys Ser Arg Gly Leu Asn His
 260 265 270
 Ser Glu Phe Thr Thr Leu Leu Tyr Glu Leu Asp Ser Gln Tyr Gly Ser
 275 280 285
 Leu Leu Tyr Tyr Thr Glu Ile Lys Trp Leu Ser Arg Gly Leu Val Leu

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Lys Arg Phe Phe Glu Ser Leu Glu Glu Ile Asp Ser Phe Met Ser Ser
305              310              315              320
Arg Gly Lys Pro Leu Pro Gln Leu Ser Ser Ile Asp Trp Ile Arg Asp
      325              330              335
Leu Ala Phe Leu Val Asp Met Thr Met His Leu Asn Ala Leu Asn Ile
      340              345              350
Ser Leu Gln Gly His Ser Gln Ile Val Thr Gln Met Tyr Asp Leu Ile
      355              360              365
Arg Ala Phe Leu Ala Lys Leu Cys Leu Trp Glu Thr His Leu Thr Arg
      370              375              380
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Ser Asp Gly Leu Asn Tyr Ile Pro Lys Ile Ala Glu Leu Lys Thr Glu
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Phe Gln Lys Arg Leu Ser Asp Phe Lys Leu Tyr Glu Ser Glu Leu Thr
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Leu Gln Met Glu Val Ile Asp Leu Gln Cys Asn Thr Val Leu Lys Thr
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465              470              475              480
Ser Tyr Pro Lys Tyr Lys His His Cys Ala Lys Ile Leu Ser Met Phe
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Gly Ser Thr Tyr Ile Cys Glu Gln Leu Phe Ser Ile Met Lys Leu Ser
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<211> 3059
<212> DNA
<213> Homo sapiens

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<210> 5040

<211> 616

<212> PRT

<213> Homo sapiens

<400> 5040

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 Tyr Leu Gly Ser Gly Gly Trp Arg Phe Ile Arg Val Phe Ile Lys Thr
 35 40 45
 Ile Arg Arg Asp Ile Phe Gly Gly Leu Val Leu Leu Lys Val Lys Ala
 50 55 60
 Lys Val Arg Gln Cys Leu Gln Glu Arg Arg Thr Val Pro Ile Leu Phe
 65 70 75 80
 Ala Ser Thr Val Arg Arg His Pro Asp Lys Thr Ala Leu Ile Phe Glu
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 Gly Thr Asp Thr His Trp Thr Phe Arg Gln Leu Asp Glu Tyr Ser Ser
 100 105 110
 Ser Val Ala Asn Phe Leu Gln Ala Arg Gly Leu Ala Ser Gly Asp Val

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Arg Arg Asp Ala Leu Leu His Cys Leu Thr Thr Ser Arg Ala Arg Ala
165          170          175
Leu Val Phe Gly Ser Glu Met Ala Ser Ala Ile Cys Glu Val His Ala
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Ser Pro Asp Pro Ser Leu Ser Leu Phe Cys Ser Gly Ser Trp Glu Pro
195          200          205          210
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215          220          225
Ala Pro Lys His Leu Pro Ser Cys Pro Asp Lys Gly Phe Thr Asp Lys
230          235          240
Leu Phe Tyr Ile Tyr Thr Ser Gly Thr Thr Gly Leu Pro Lys Ala Ala
245          250          255
Ile Val Val His Ser Arg Tyr Tyr Arg Met Ala Ala Leu Val Tyr Tyr
260          265          270
Gly Phe Arg Met Arg Pro Asn Asp Ile Val Tyr Asp Cys Leu Pro Leu
275          280          285
Tyr His Ser Ala Gly Asn Ile Val Gly Ile Gly Gln Cys Leu Leu His
290          295          300
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340          345          350
His Gln Val Arg Met Ala Leu Gly Asn Ala Ser Gly Ser Pro Ser Gly
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Gly Pro Glu Cys Asn Cys Ser Leu Gly Asn Phe Asp Ser Gln Val Gly
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405          410          415
Leu Val Arg Val Asn Glu Asp Thr Met Glu Leu Ile Arg Gly Pro Asp
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Arg Ile Ile Gln Lys Asp Pro Leu Arg Arg Phe Asp Gly Tyr Leu Asn
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Gln Gly Ala Asn Asn Lys Lys Ile Ala Lys Asp Val Phe Lys Lys Gly
465          470          475          480
Asp Gln Ala Tyr Leu Thr Gly Asp Val Leu Val Met Asp Glu Leu Gly
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Tyr Leu Tyr Phe Arg Asp Arg Thr Gly Asp Thr Phe Arg Trp Lys Gly
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<210> 5041

<211> 2461

<212> DNA

<213> Homo sapiens

<400> 5041

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<211> 686

<212> PRT

<213> Homo sapiens

<400> 5042

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 Ala Arg Glu Ala Ser Glu Glu Leu Gly Leu Val His Ser Pro Glu
 65 70 75 80
 Tyr Val Ser Leu Val Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu
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 Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr
 100 105 110
 Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp
 115 120 125
 Ala Val Leu Thr Gly Ala Val Gln Asn Gly Leu Ala Leu Val Arg Pro
 130 135 140
 Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe
 145 150 155 160
 Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu
 165 170 175
 His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile
 180 185 190
 Gln Tyr Leu Phe Glu Asp Asp Pro Ser Val Leu Tyr Phe Ser Trp His
 195 200 205
 Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala
 210 215 220
 Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro
 225 230 235 240
 Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu
 245 250 255
 His Leu Leu Leu Pro Leu Ala Phe Glu Phe Asp Pro Glu Leu Val Leu
 260 265 270
 Val Ser Ala Gly Phe Asp Ser Ala Ile Gly Asp Pro Glu Gly Gln Met
 275 280 285
 Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val
 290 295 300
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 305 310 315 320
 Glu Ser Leu Ala Glu Ser Val Cys Met Thr Val Gln Thr Leu Leu Gly
 325 330 335
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 Pro His Trp Lys Ser Leu Gln Gln Gln Asp Val Thr Ala Val Pro Met
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 Ser Pro Ser Ser His Ser Pro Glu Gly Arg Pro Pro Pro Leu Leu Pro
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 Gly Gly Pro Val Cys Lys Ala Ala Ala Ser Ala Pro Ser Ser Leu Leu
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 Asp Gln Pro Cys Leu Cys Pro Ala Pro Ser Val Arg Thr Ala Val Ala
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 Leu Thr Thr Pro Asp Ile Thr Leu Val Leu Pro Pro Asp Val Ile Gln

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  465              470              475              480
Leu Tyr Leu Leu Asp Gly Met Leu Asp Gly Gln Val Asn Ser Gly Ile
      485              490              495
Ala Ala Thr Pro Ala Ser Ala Ala Ala Thr Leu Asp Val Ala Val
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Gly Gln Leu Asp Arg Pro Pro Asp Leu Ala His Asp Gly Arg Ser Leu
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Trp Leu Asn Ile Arg Gly Lys Glu Ala Ala Ala Leu Ser Met Phe His
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Val Ser Thr Pro Leu Pro Val Met Thr Gly Gly Phe Leu Ser Cys Ile
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Leu Val Ala Leu Gly Pro Gly His Gly Leu Gln Gly Pro His Ala Ala
  595              600              605
Leu Leu Ala Ala Met Leu Arg Gly Leu Ala Gly Gly Arg Val Leu Ala
  610              615              620
Leu Leu Glu Glu Asn Ser Thr Pro Gln Leu Ala Gly Ile Leu Ala Arg
  625              630              635              640
Val Leu Asn Gly Glu Ala Pro Pro Ser Leu Gly Pro Ser Ser Val Ala
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<211> 1824

<212> DNA

<213> Homo sapiens

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<211> 273

<212> PRT

<213> Homo sapiens

<400> 5044

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      35           40           45
Pro Ser Ala Leu Ser Gly Gly Gln Pro Ala Asp Thr Gln Thr Arg Ala
      50           55           60
Thr Ser Lys Ser Leu Leu Pro Val Arg Ser Lys Glu Val Asp Val Ser
      65           70           75           80
Lys Gln Leu His Ser Gly Gly Pro Glu Asn Asp Val Thr Lys Ile Thr
      85           90           95
Lys Leu Arg Arg Glu Asn Gly Gln Met Lys Ala Thr Asp Thr Ala Thr
      100          105          110
Arg Arg Asn Val Arg Lys Gly Tyr Lys Pro Leu Ser Lys Gln Lys Ser
      115          120          125
Glu Glu Glu Leu Lys Asp Lys Asn Gln Leu Leu Glu Ala Val Asn Lys
      130          135          140
Gln Leu His Gln Lys Leu Thr Glu Thr Gln Gly Glu Leu Lys Asp Leu
      145          150          155          160
Thr Gln Lys Val Glu Leu Leu Glu Lys Phe Arg Asp Asn Cys Leu Ala
      165          170          175
Ile Leu Glu Ser Lys Gly Leu Asp Pro Ala Leu Gly Ser Glu Thr Leu
      180          185          190
Ala Ser Arg Gln Glu Ser Thr Thr Asp His Met Asp Ser Met Leu Leu
      195          200          205
Leu Glu Thr Leu Gln Glu Glu Leu Lys Leu Phe Asn Glu Thr Ala Lys
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Lys Gln Met Glu Glu Leu Gln Ala Leu Lys Val Lys Leu Glu Met Lys
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Glu Glu Arg Val Arg Phe Leu Glu Gln Gln Thr Leu Cys Asn Asn Gln
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<210> 5045

<211> 462

<212> DNA

<213> Homo sapiens

<400> 5045

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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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<212> DNA

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<210> 5052

<211> 433

<212> PRT

<213> Homo sapiens

<400> 5052

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 20 25 30
 Glu Ser Gly Asp Glu Phe Thr Tyr Gly Asp Val Pro Val Glu Asn Gly
 35 40 45
 Met Ala Pro Phe Phe Glu Met Lys Leu Lys His Tyr Lys Ile Phe Glu
 50 55 60
 Gly Met Pro Val Thr Phe Thr Cys Arg Val Ala Gly Asn Pro Lys Pro

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His Tyr Thr Ile Gln Arg Asp Leu Asp Gly Thr Cys Ser Leu His Thr
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Thr Ala Ser Thr Leu Asp Asp Asp Gly Asn Tyr Thr Ile Met Ala Ala
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Asn Pro Gln Gly Arg Ile Ser Cys Thr Gly Arg Leu Met Val Gln Ala
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Val Asn Gln Arg Gly Arg Ser Pro Arg Ser Pro Ser Gly His Pro His
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Val Arg Arg Pro Arg Ser Arg Ser Arg Asp Ser Gly Asp Glu Asn Glu
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Pro Ile Gln Glu Arg Phe Phe Arg Pro His Phe Leu Gln Ala Pro Gly
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Asp Leu Thr Val Gln Glu Gly Lys Leu Cys Arg Met Asp Cys Lys Val
      195                               200                               205
Ser Gly Leu Pro Thr Pro Asp Leu Ser Trp Gln Leu Asp Gly Lys Pro
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Val Arg Pro Asp Ser Ala His Lys Met Leu Val Arg Glu Asn Gly Val
      225                               230                               235                               240
His Ser Leu Ile Ile Glu Pro Val Thr Ser Arg Asp Ala Gly Ile Tyr
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      260                               265                               270
Leu Val Val Ala Ala Lys Glu Ala His Lys Pro Pro Val Phe Ile Glu
      275                               280                               285
Lys Leu Gln Asn Thr Gly Val Ala Asp Gly Tyr Pro Val Arg Leu Glu
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Cys Arg Val Leu Gly Val Pro Pro Pro Gln Ile Phe Trp Lys Lys Glu
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Asn Glu Ser Leu Thr His Ser Thr Asp Arg Val Ser Met His Gln Asp
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Asn His Gly Tyr Ile Cys Leu Leu Ile Gln Gly Ala Thr Lys Glu Asp
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Ala Gly Trp Tyr Thr Val Ser Ala Lys Asn Glu Ala Gly Ile Val Ser
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Cys Thr Ala Arg Leu Asp Val Tyr Thr Gln Trp His Gln Gln Ser Gln
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Ser Thr Lys Pro Lys Lys Val Arg Pro Ser Ala Ser Arg Tyr Ala Ala
      385                               390                               395                               400
Leu Ser Asp Gln Gly Leu Asp Ile Lys Ala Ala Phe Gln Pro Glu Ala
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Asn Pro Ser His Leu Thr Leu Asn Thr Ala Leu Val Glu Ser Glu Asp
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<210> 5053

<211> 781

<212> DNA

<213> Homo sapiens

<400> 5053

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 781

<210> 5054

<211> 156

<212> PRT

<213> Homo sapiens

<400> 5054

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 35 40 45
 Ala Asp Leu Lys His Ser Asp Gly Thr Arg Thr Cys Ala Lys Leu Tyr
 50 55 60
 Asp Lys Ser Asp Pro Tyr Tyr Glu Asn Cys Cys Gly Gly Ala Glu Leu
 65 70 75 80
 Ser Leu Glu Ser Gly Ala Asp Leu Pro Tyr Leu Pro Ser Asn Trp Ala
 85 90 95
 Asn Thr Ala Ser Ser Leu Val Val Ala Pro Arg Cys Glu Leu Thr Val
 100 105 110
 Trp Ser Arg Gln Gly Lys Ala Gly Lys Thr His Lys Phe Ser Ala Gly
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150

155

<210> 5055

<211> 2520

<212> DNA

<213> Homo sapiens

<400> 5055

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<210> 5056

<211> 672

<212> PRT

<213> Homo sapiens

<400> 5056

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 Asp Val Thr Val Ile Val Glu Asp Arg Lys Phe Arg Ala His Lys Asn
 35 40 45
 Ile Leu Ser Ala Ser Ser Thr Tyr Phe His Gln Leu Phe Ser Val Ala
 50 55 60
 Gly Gln Val Val Glu Leu Ser Phe Ile Arg Ala Glu Ile Phe Ala Glu

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Ile Leu Asn Tyr Ile Tyr Ser Ser Lys Ile Val Arg Val Arg Ser Asp
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Leu Leu Asp Glu Leu Ile Lys Ser Gly Gln Leu Leu Gly Val Lys Phe
      100      105      110
Ile Ala Glu Leu Gly Val Pro Leu Ser Gln Val Lys Ser Ile Ser Gly
      115      120      125
Thr Ala Gln Asp Gly Asn Thr Glu Pro Leu Pro Pro Asp Ser Gly Asp
      130      135      140
Lys Asn Leu Val Ile Gln Lys Ser Lys Asp Glu Ala Gln Asp Asn Gly
145      150      155      160
Ala Thr Ile Met Pro Ile Ile Thr Glu Ser Phe Ser Leu Ser Ala Glu
      165      170      175
Asp Tyr Glu Met Lys Lys Ile Ile Val Thr Asp Ser Asp Asp Asp Asp
      180      185      190
Asp Asp Val Ile Phe Cys Ser Glu Ile Leu Pro Thr Lys Glu Thr Leu
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Pro Ser Asn Asn Thr Val Ala Gln Val Gln Ser Asn Pro Gly Pro Val
      210      215      220
Ala Ile Ser Asp Val Ala Pro Ser Ala Ser Asn Asn Ser Pro Pro Leu
225      230      235      240
Thr Asn Ile Thr Pro Thr Gln Lys Leu Pro Thr Pro Val Asn Gln Ala
      245      250      255
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      260      265      270
Pro Thr His Leu Thr Pro Asn Ile Ile Leu Leu Asn Gln Thr Pro Leu
      275      280      285
Ser Thr Pro Pro Asn Val Ser Ser Ser Leu Pro Asn His Met Pro Ser
      290      295      300
Ser Ile Asn Leu Leu Val Gln Asn Gln Gln Thr Pro Asn Ser Ala Ile
305      310      315      320
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      325      330      335
Asp Asp Asp Asp Thr Ile Ser Ser Ser Pro Asp Ser Ala Val Ser Asn
      340      345      350
Thr Ser Leu Val Pro Gln Ala Asp Thr Ser Gln Asn Thr Ser Phe Asp
      355      360      365
Gly Ser Leu Ile Gln Lys Met Gln Ile Pro Thr Leu Leu Gln Glu Pro
      370      375      380
Leu Ser Asn Ser Leu Lys Ile Ser Asp Ile Ile Thr Arg Asn Thr Asn
385      390      395      400
Asp Pro Gly Val Gly Ser Lys His Leu Met Glu Gly Gln Lys Ile Ile
      405      410      415
Thr Leu Asp Thr Ala Thr Glu Ile Glu Gly Leu Ser Thr Gly Cys Lys
      420      425      430
Val Tyr Ala Asn Ile Gly Glu Asp Thr Tyr Asp Ile Val Ile Pro Val
      435      440      445
Lys Asp Asp Pro Asp Glu Gly Glu Ala Arg Leu Glu Asn Glu Ile Pro
      450      455      460
Lys Thr Ser Gly Ser Glu Met Ala Asn Lys Arg Met Lys Val Lys His
465      470      475      480
Asp Asp His Tyr Glu Leu Ile Val Asp Gly Arg Val Tyr Tyr Ile Cys
      485      490      495
Ile Val Cys Lys Arg Ser Tyr Val Cys Leu Thr Ser Leu Arg Arg His

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Phe Asn Ile His Ser Trp Glu Lys Lys Tyr Pro Cys Arg Tyr Cys Glu
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Lys Val Phe Pro Leu Ala Glu Tyr Arg Thr Lys His Glu Ile His His
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Thr Gly Glu Arg Arg Tyr Gln Cys Leu Ala Cys Gly Lys Ser Phe Ile
          545          550          555
Asn Tyr Gln Phe Met Ser Ser His Ile Lys Ser Val His Ser Gln Asp
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Pro Ser Gly Asp Ser Lys Leu Tyr Arg Leu His Pro Cys Arg Ser Leu
          580          585          590
Gln Ile Arg Gln Tyr Ala Tyr His Ser Asp Arg Ser Ser Thr Ile Pro
          595          600          605
Ala Met Lys Asp Asp Gly Ile Gly Tyr Lys Val Asp Thr Gly Lys Glu
          610          615          620
Pro Pro Val Gly Thr Thr Ser Thr Gln Asn Lys Pro Met Thr Trp
          625          630          635
Glu Asp Ile Phe Ile Gln Gln Glu Asn Asp Ser Ile Phe Lys Gln Asn
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Val Thr Asp Gly Ser Thr Glu Phe Glu Phe Ile Ile Pro Glu Ser Tyr
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<210> 5057

<211> 673

<212> DNA

<213> Homo sapiens

<400> 5057

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<210> 5058

<211> 122
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gly Gln Thr Pro Gln Glu Arg Val Glu Glu Val Leu Ser Gly Lys Leu
 50 55 60
 Phe Asp Arg Leu Arg Asp Glu Asn Pro Asp Phe Arg Glu Lys Ile Ile
 65 70 75 80
 Ala Ile Asn Ser Glu Leu Thr Gln Pro Lys Leu Ala Leu Ser Glu Glu
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 Ala Thr Val Arg Phe Asn Glu Asn Leu Arg
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<210> 5059
 <211> 480
 <212> DNA
 <213> Homo sapiens

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<210> 5060
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 <212> PRT
 <213> Homo sapiens

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Leu	Arg	Ala	Trp	Val	Leu
	50		55		60
Arg	Leu	Ser	Leu	Glu	Lys
	65		70		75
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<210> 5061

<211> 2462

<212> DNA

<213> Homo sapiens

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 2280
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 cattttggag cctgggatga ctgcctaggc caettatgct agacctgtta atgccagtg
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<210> 5062

<211> 136

<212> PRT

<213> Homo sapiens

<400> 5062

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20           25           30
Val Arg Arg Ser Pro Ser Ser Arg Phe Ser Phe Phe Pro Gln Gln
35           40           45
Arg Asn Trp Arg Lys Asp Ile Lys Leu Ser Ala Val Asp Leu Ser Ala
50           55           60
Glu Ile Phe Pro Glu Ser Met Val Val Leu Asn Tyr Leu His Val Ser
65           70           75           80
Ser Ile Phe Asn Ser Gly Val Gly Leu Phe Leu Ile Ser Ser Gln Lys
85           90           95
Cys Ser Ala Leu Gly Glu Gly Thr Ser Pro Leu Ala Cys His Phe Pro
100          105          110
Gly Val Leu Tyr His Phe Asp Gly Thr Leu Trp Ser Ala Glu Asn Ala
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Leu Ser Trp His Ala Ser Arg Leu
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<210> 5063

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5063

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120
tctcccttct tagagagaga gtggaagctt ctgagtggtg cttgggtcgt tctgaacctat
180
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300
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420
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<210> 5064

<211> 110

<212> PRT

<213> Homo sapiens

<400> 5064

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Pro Pro Ser Tyr Val Pro Asp Thr Val Asp Leu Thr Asp Asp Ala Leu
      20           25           30
Ala Arg Lys Tyr Trp Leu Thr Cys Phe Glu Glu Ala Leu Asp Gly Val
      35           40           45
Val Lys Arg Ala Val Ala Ser Gln Pro Asp Ser Val Asp Ala Ala Glu
      50           55           60
Arg Ala Glu Lys Phe Arg Gln Lys Tyr Trp Asn Lys Leu Gln Thr Leu
      65           70           75           80
Arg Gln Gln Pro Phe Ala Tyr Gly Thr Leu Thr Val Arg Ser Leu Leu
      85           90           95
Asp Thr Arg Glu His Cys Leu Asn Glu Phe Asn Phe Pro Asp
      100          105          110

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<210> 5065

<211> 370

<212> DNA

<213> Homo sapiens

<400> 5065

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120
gagaaaaaca agatggaacc cggaaacctg gccctgggtc ttggggccgac actggtgagg
180
acgtctgagg acaacatgac agacatgggt acccacatgc ctgaccgccta caagatcggt
240
gagacactga tccagcactc agactgggtc ttcagtgcgc aagaggacaa gggagagaga
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<210> 5066

<211> 123

<212> PRT

<213> Homo sapiens

<400> 5066

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Ile Glu Asp Ala Arg Glu Arg Met Arg Thr Leu Arg Lys Leu Ile Arg
 1           5           10           15
Asp Leu Pro Gly His Tyr Tyr Glu Thr Leu Lys Phe Leu Val Gly His
      20           25           30
Leu Lys Thr Ile Ala Asp His Ser Glu Lys Asn Lys Met Glu Pro Arg
      35           40           45
Asn Leu Ala Leu Val Phe Gly Pro Thr Leu Val Arg Thr Ser Glu Asp
      50           55           60
Asn Met Thr Asp Met Val Thr His Met Pro Asp Arg Tyr Lys Ile Val
      65           70           75           80
Glu Thr Leu Ile Gln His Ser Asp Trp Phe Phe Ser Asp Glu Glu Asp

```